

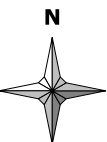
Agricultural
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1634 Monroe Ave.
Rochester, NY 14618
Phone: 1-800-310-1100
Fax: 1-877-315-2200
acs@acsoffice.com

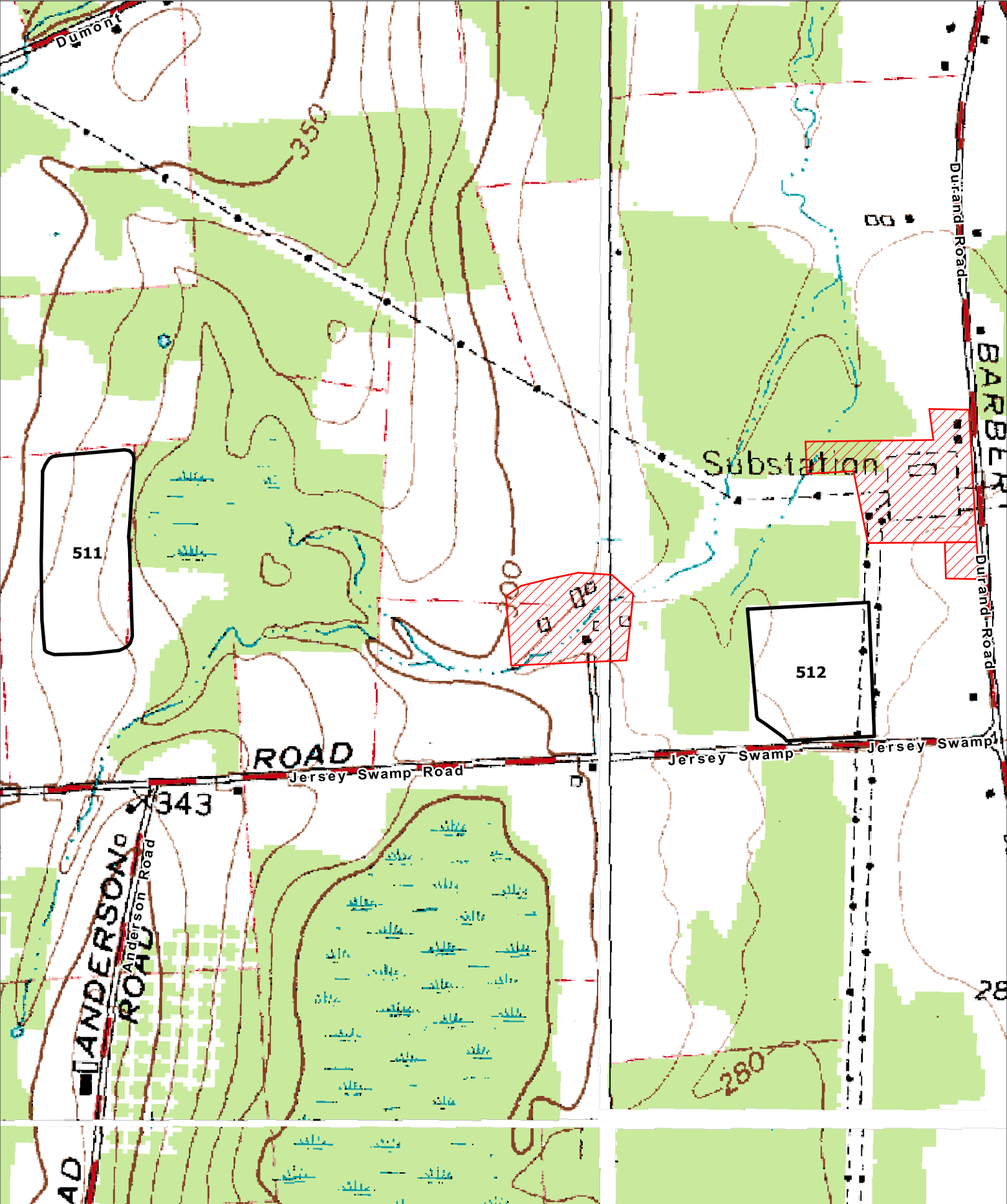
Topographic Map for:

Cha-Liz Farms

ASH 501
AJG 6-11-2013

0 660 ft US





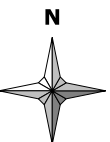
Agricultural
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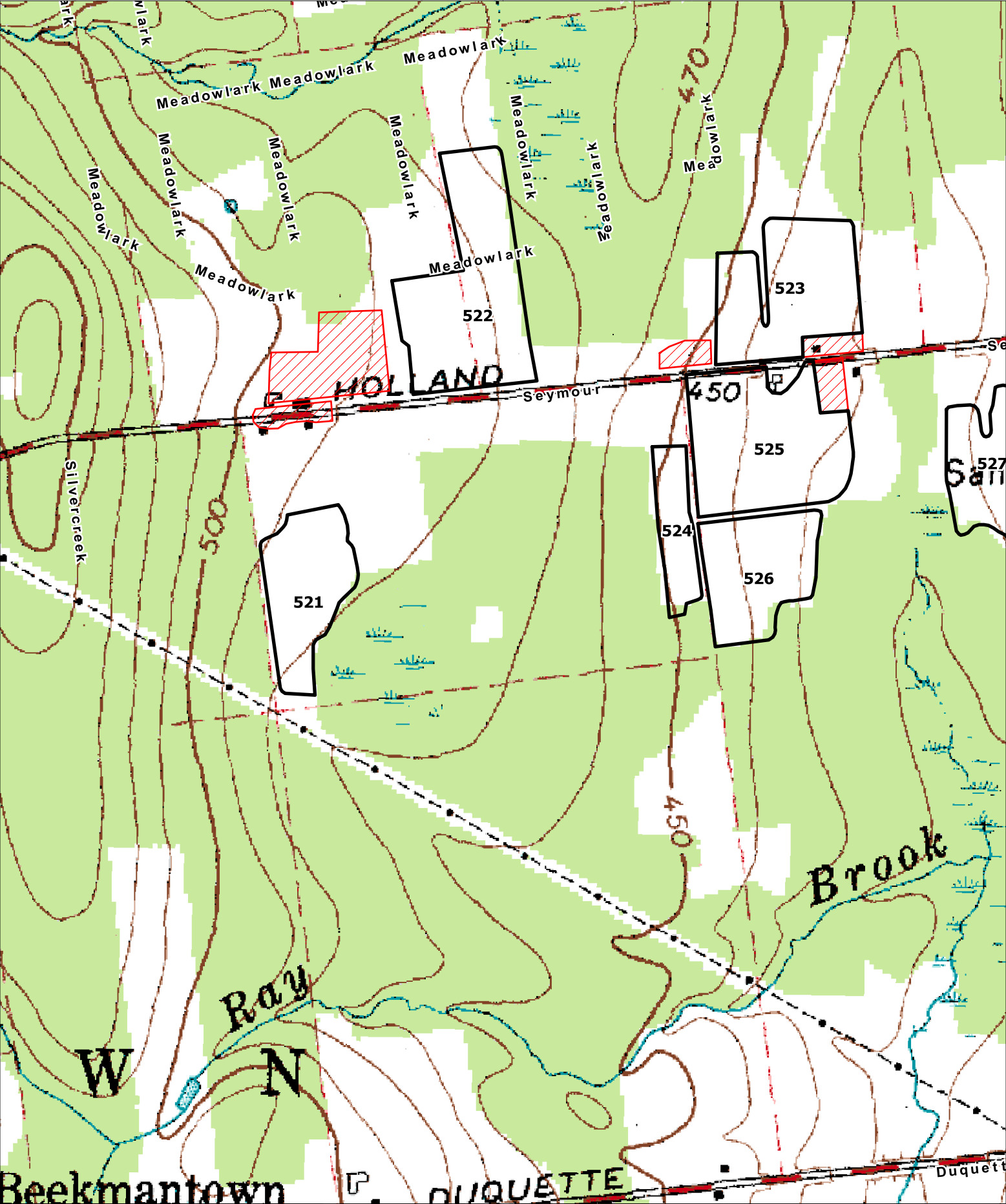
Topographic Map for:

Cha-Liz Farms

ASH 511-512
AJG 6-11-2013

0 660 ft US





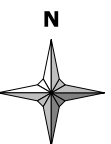
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1634 Monroe Ave.
Rochester, NY 14618
Phone: 1-800-310-1100
Fax: 1-877-315-2200
acs@acsoffice.com

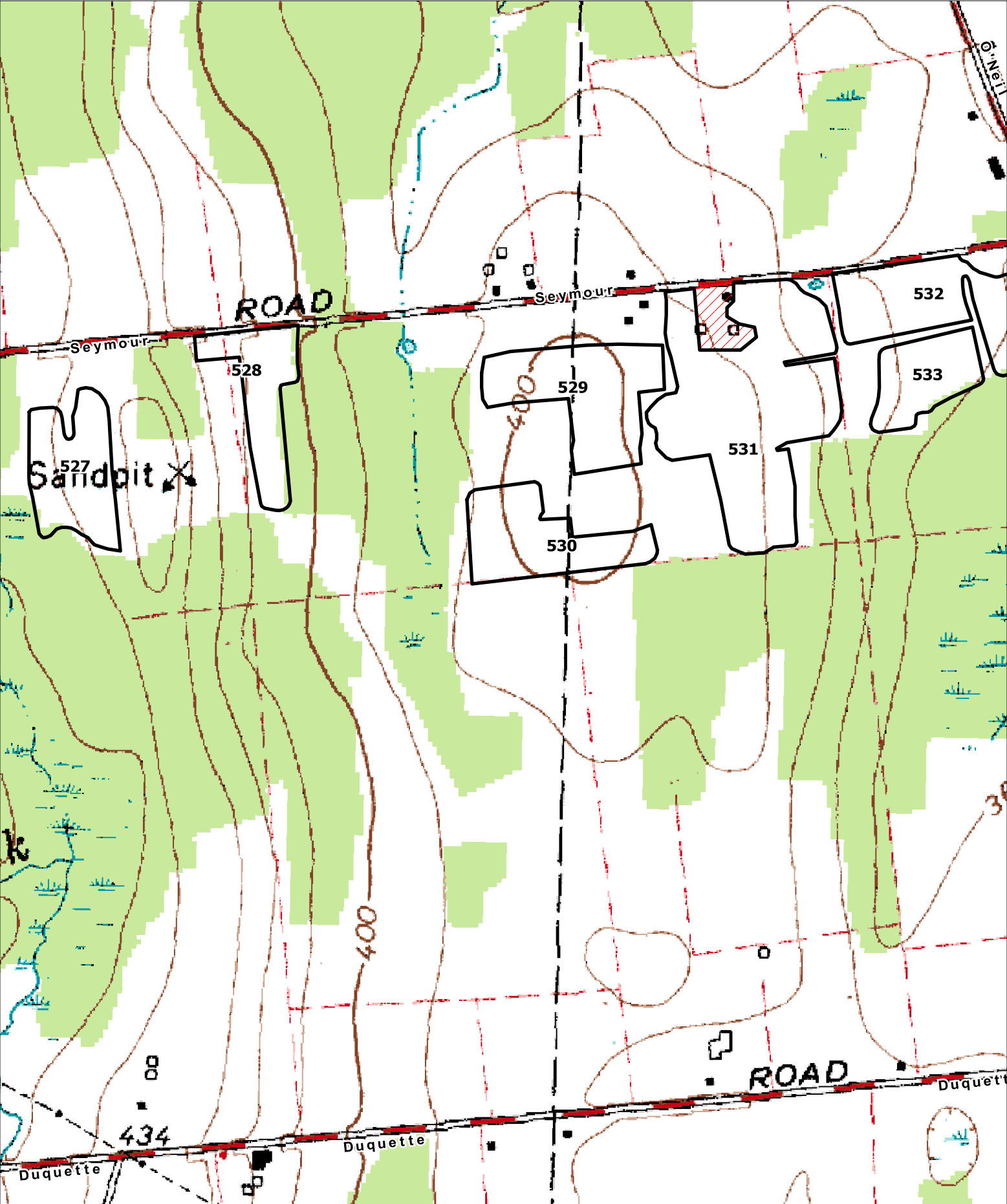
Topographic Map for:

Cha-Liz Farms

ASH 521-526
AJG 6-11-2013

0 660 ft US





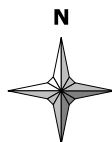
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1634 Monroe Ave.
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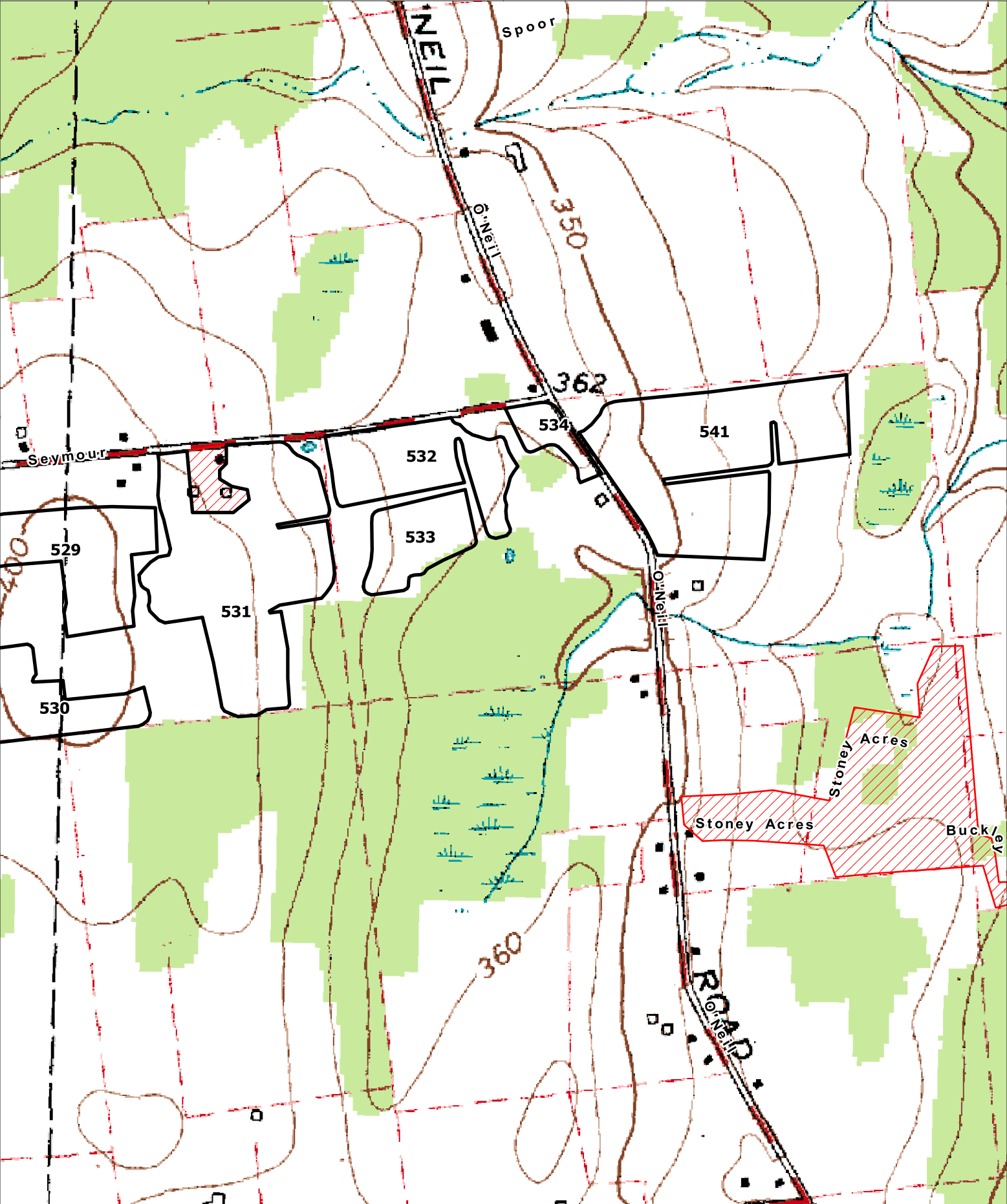
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Cha-Liz Farms

ASH 527-531
AJG 6-11-2013

0 660 ft US





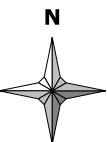
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1634 Monroe Ave.
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Phone: 1-800-310-1100
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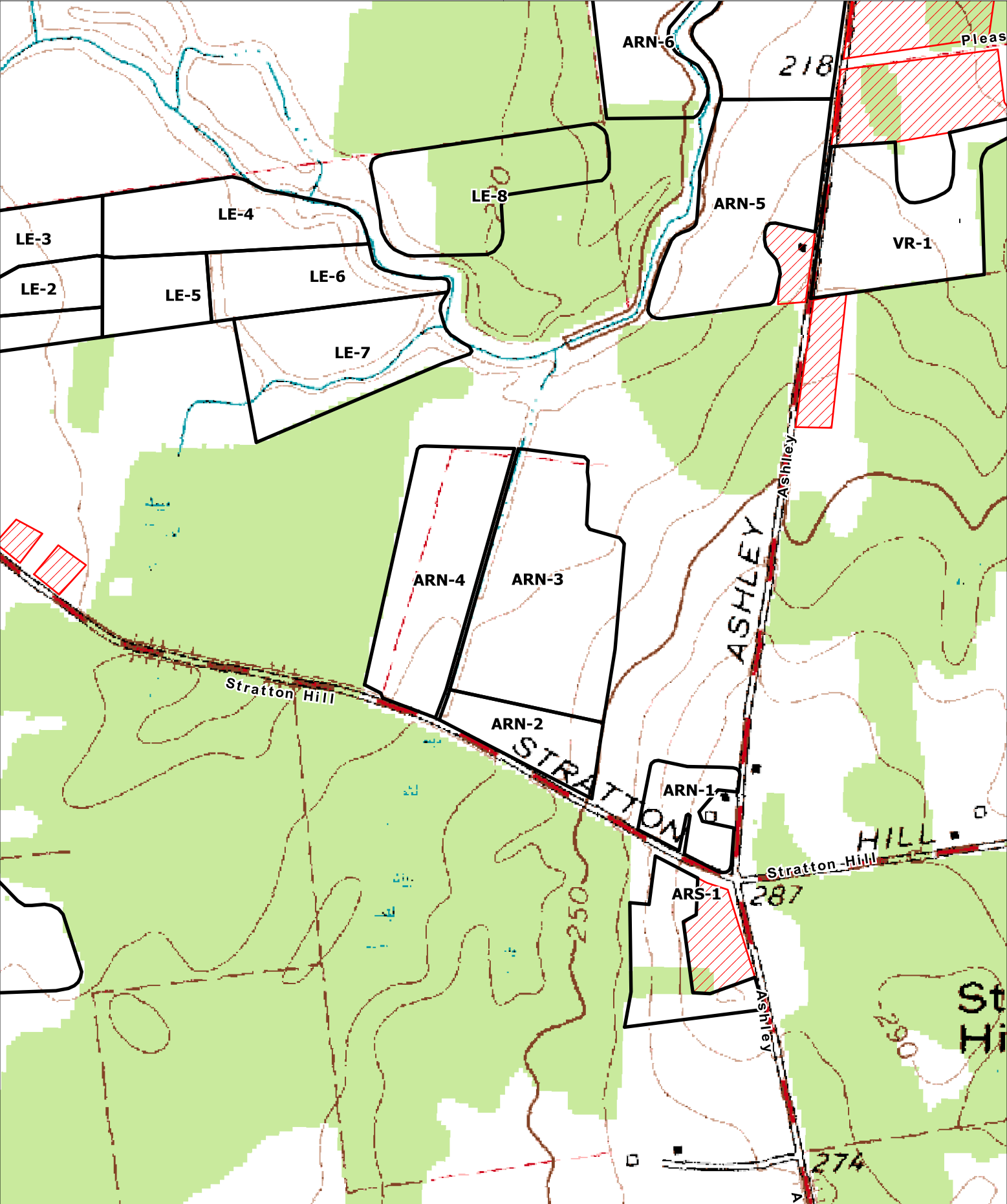
Topographic Map for:

Cha-Liz Farms

ASH 532-534, 541
AJG 6-11-2013

0 660 ft US





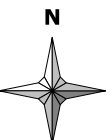
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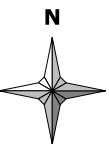
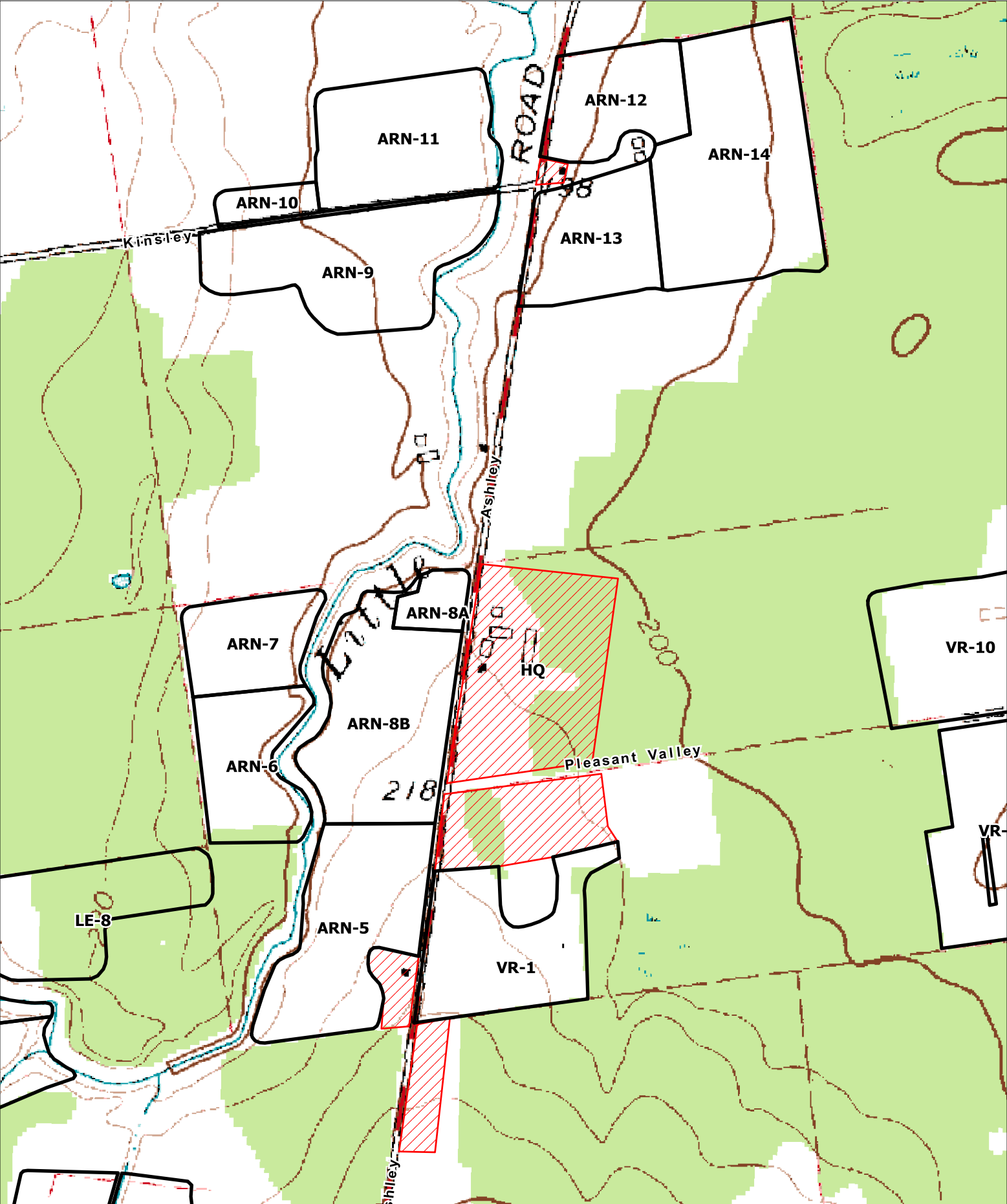
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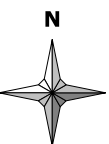
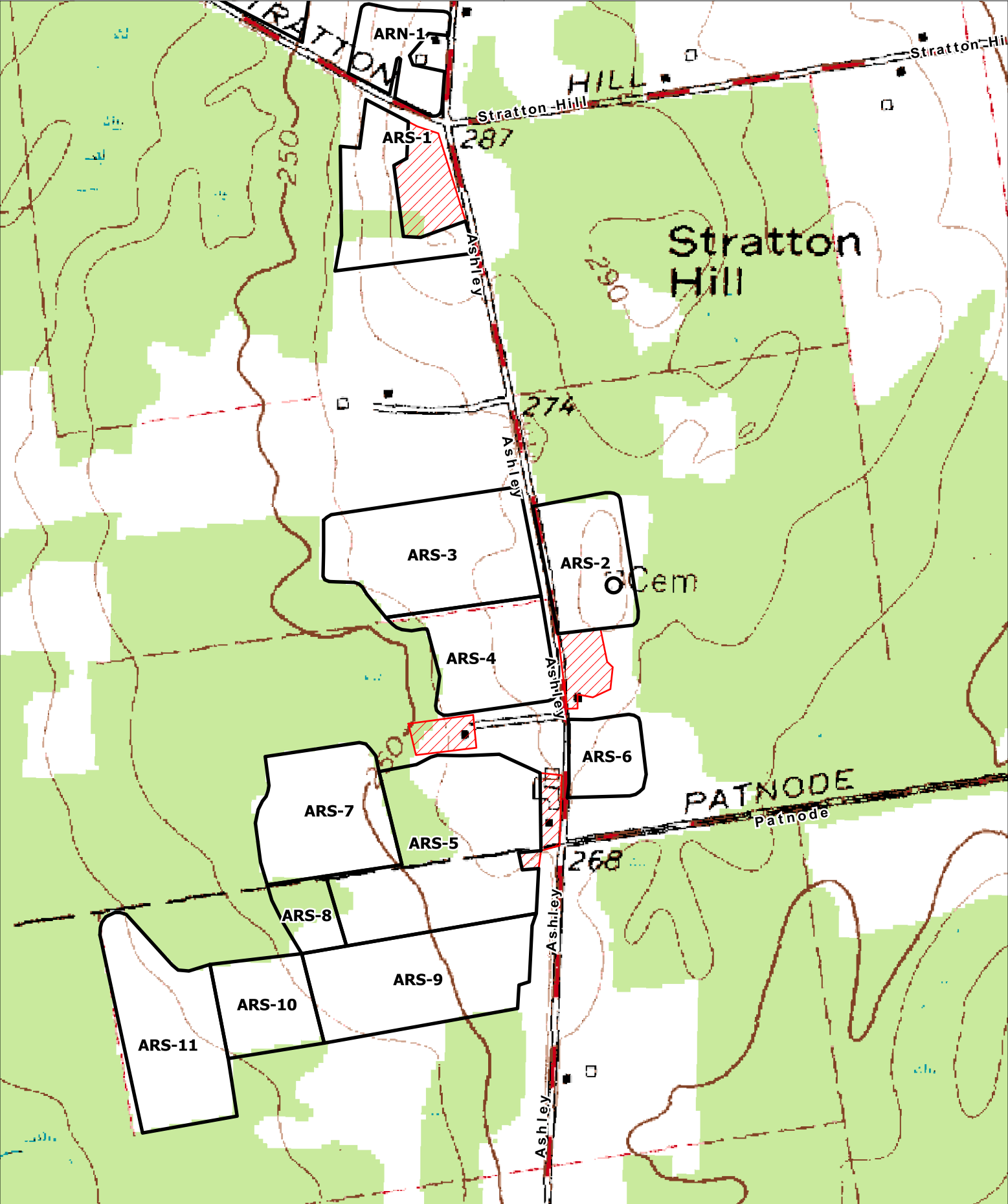
Cha-Liz Farms

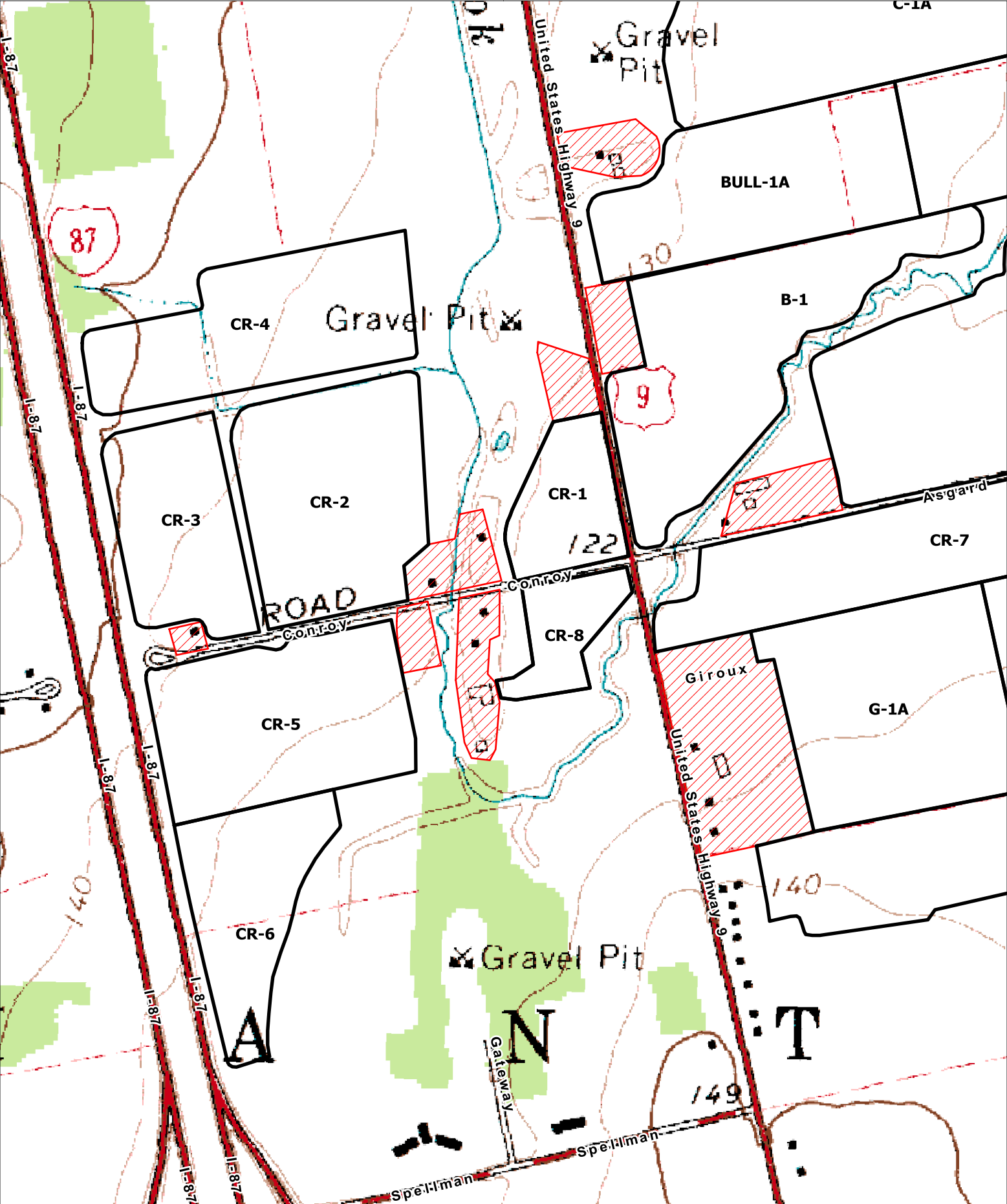
ASH ARN 01-04, ARS 01
AJG 6-11-2013

0 660 ft US









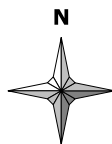
Agricultural
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1634 Monroe Ave.
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Fax: 1-877-315-2200
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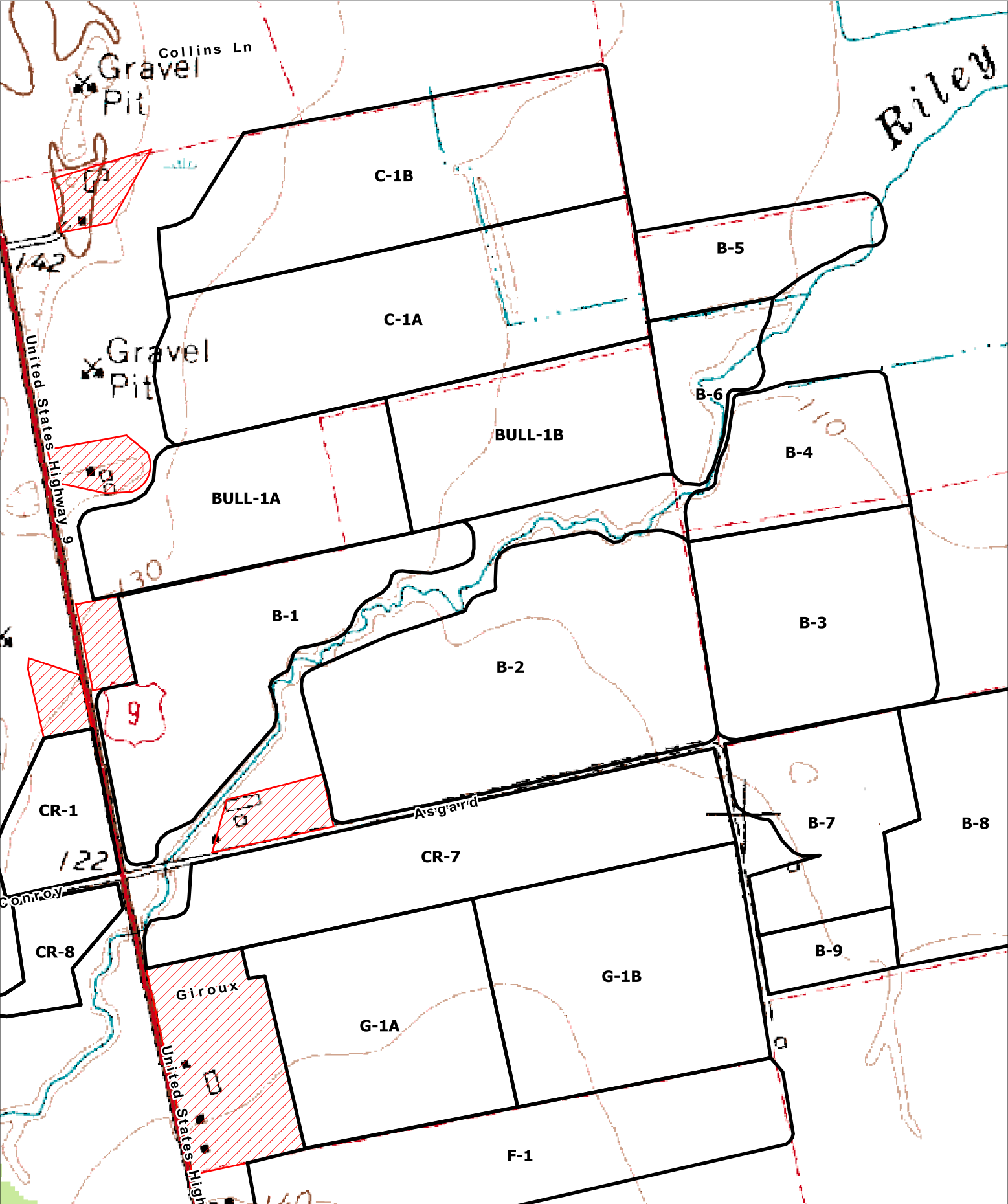
Topographic Map for:

Cha-Liz Farms

ASH CR 01-06,08
AJG 6-11-2013

0 660 ft US





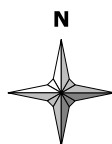

Agricultural
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1634 Monroe Ave.
Rochester, NY 14618
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Fax: 1-877-315-2200
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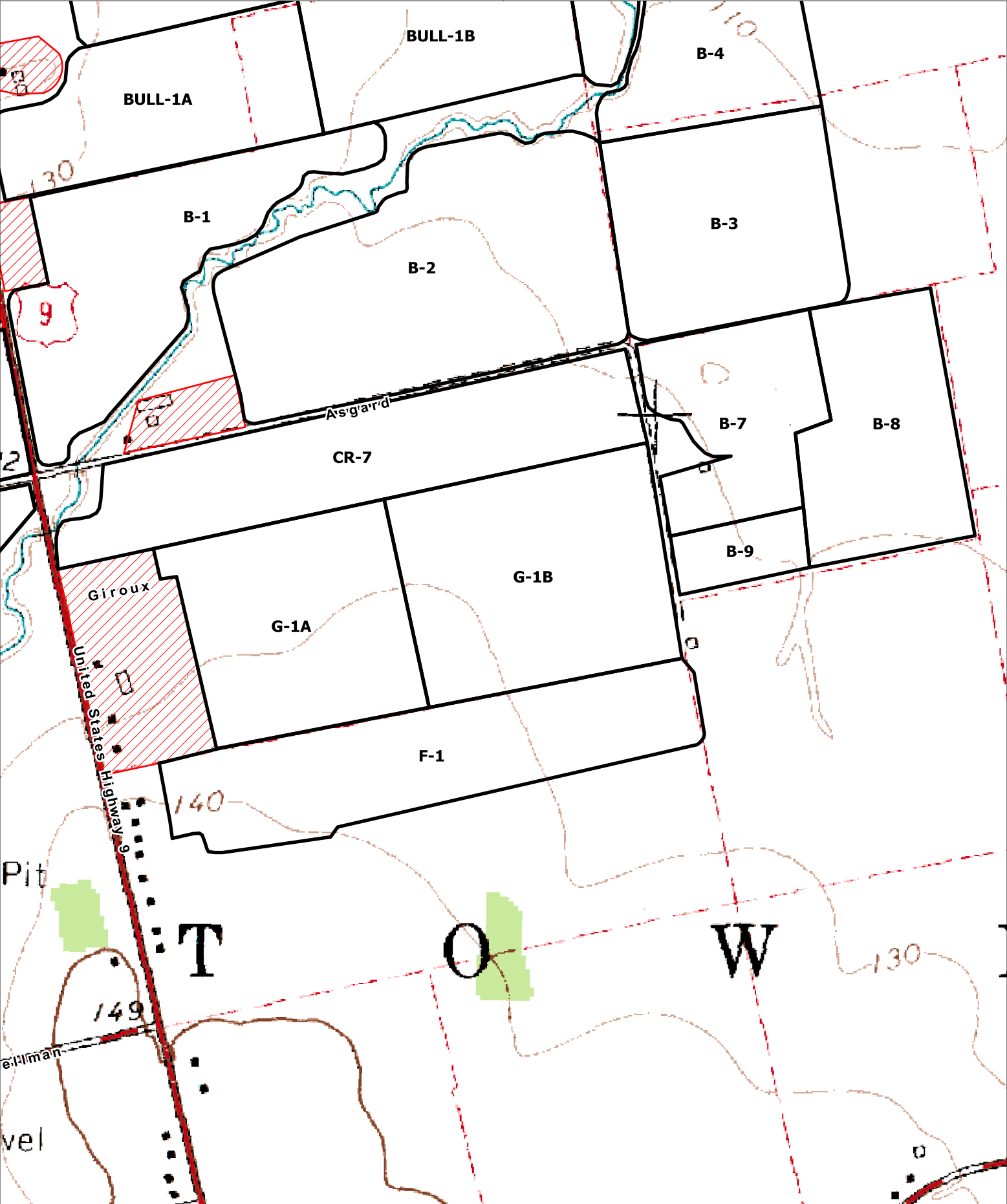
Topographic Map for:

Cha-Liz Farms

ASH CR 07, C-1AB, BULL-1AB, B 01-07,09
AJG 6-11-2013

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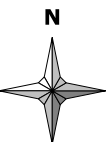
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1634 Monroe Ave.
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Fax: 1-877-315-2200
acs@acsoffice.com

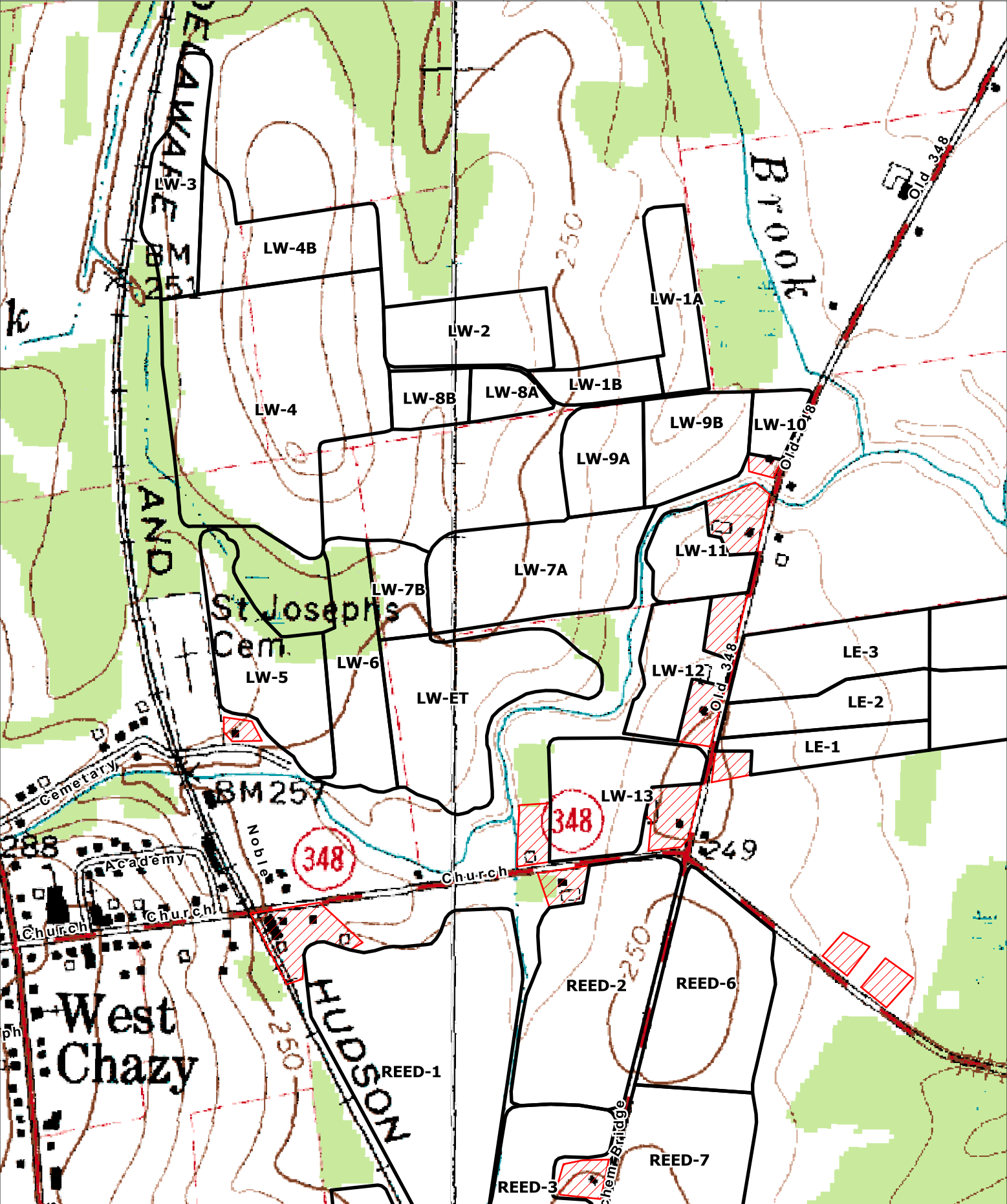
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Cha-Liz Farms

ASH G-1AB, F 01, B 08
AJG 6-11-2013

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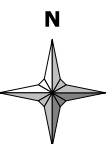
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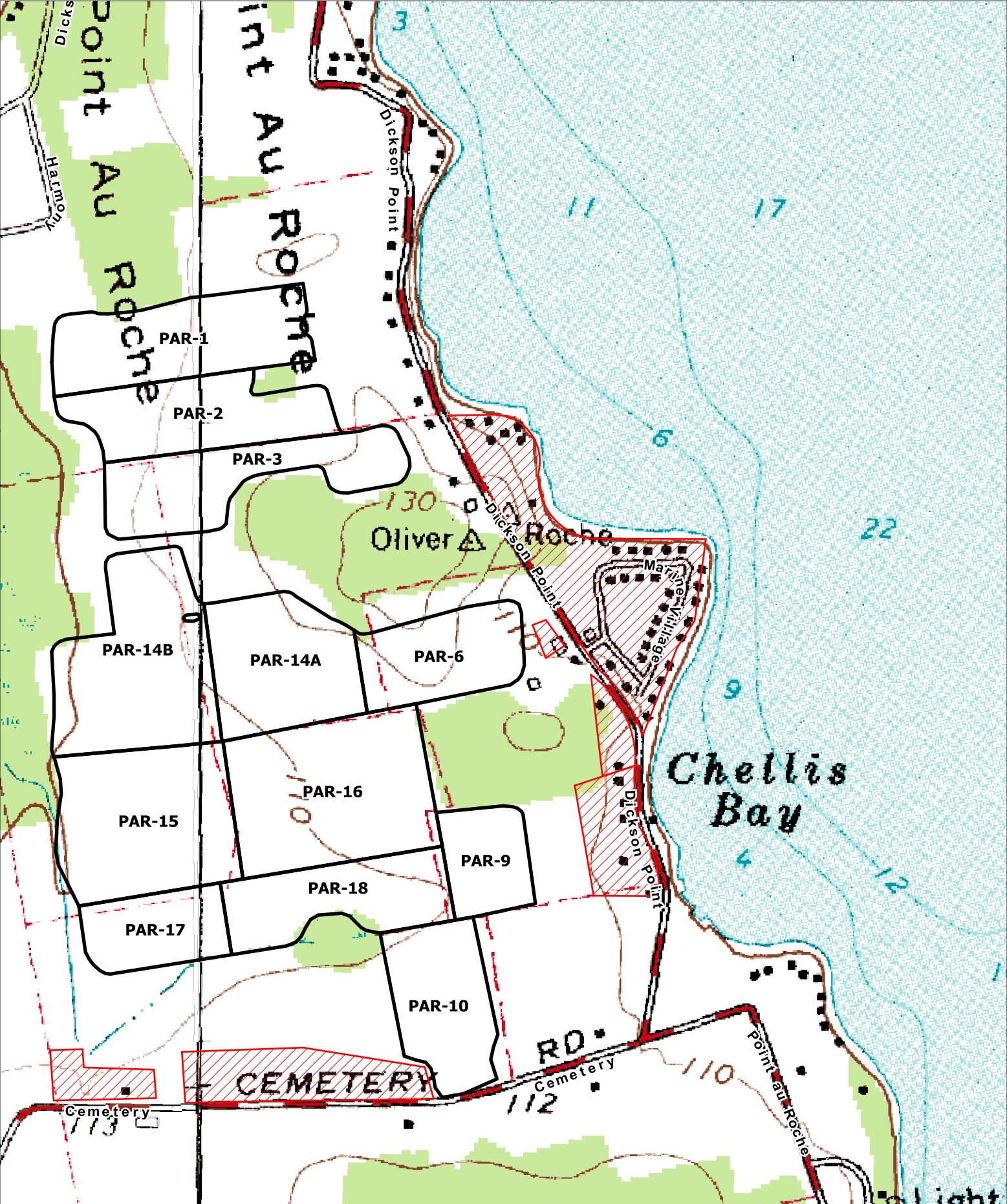
Topographic Map for:

Cha-Liz Farms

ASH LW 01-13, LW ET
AJG 6-11-2013

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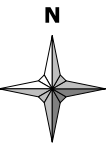
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Rochester, NY 14618
Phone: 1-800-310-1100
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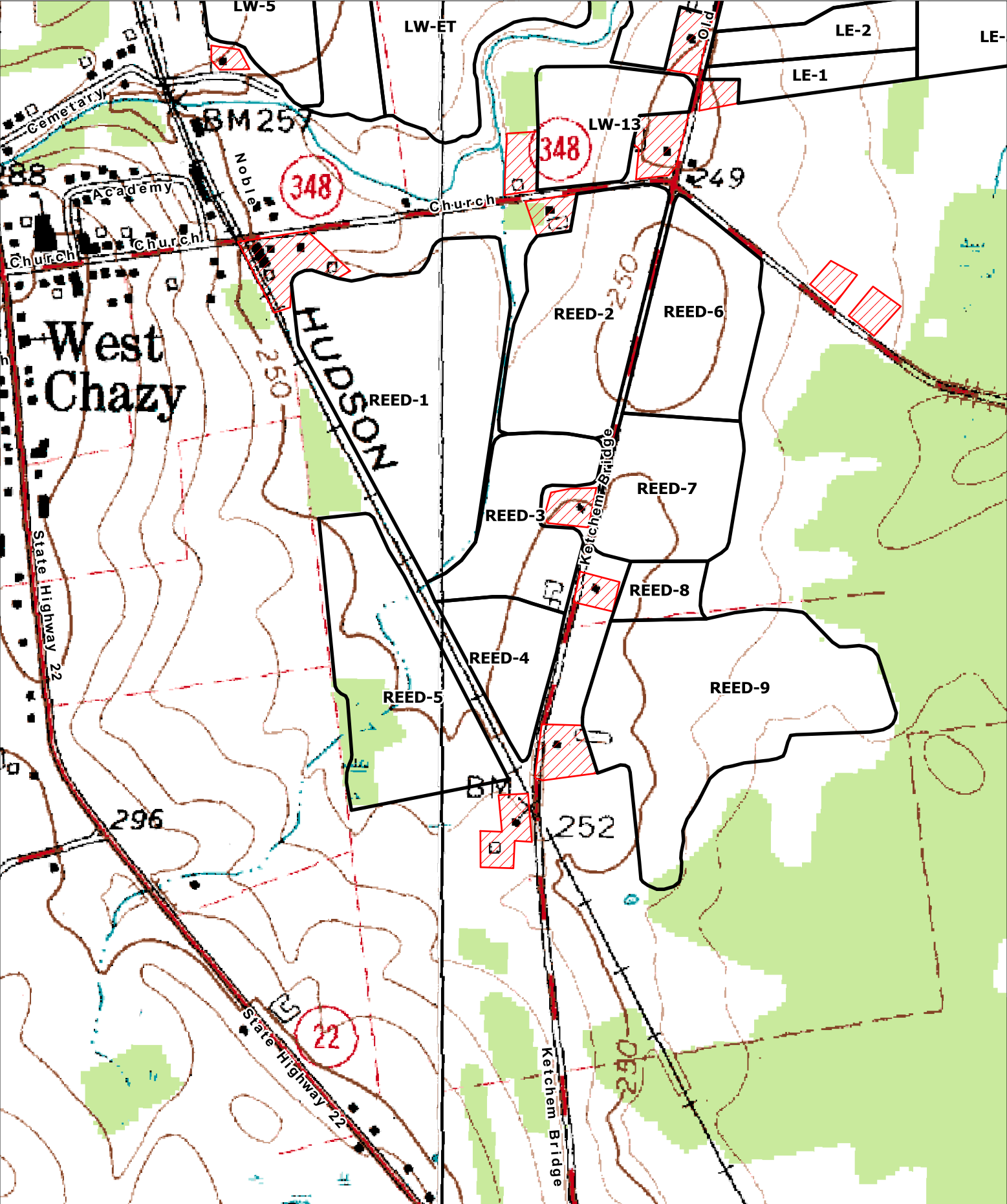
Topographic Map for:

Cha-Liz Farms

ASH PAR 01-18
AJG 6-11-2013

0 660 ft US





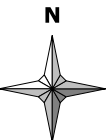
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Rochester, NY 14618
Phone: 1-800-310-1100
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acs@acsoffice.com

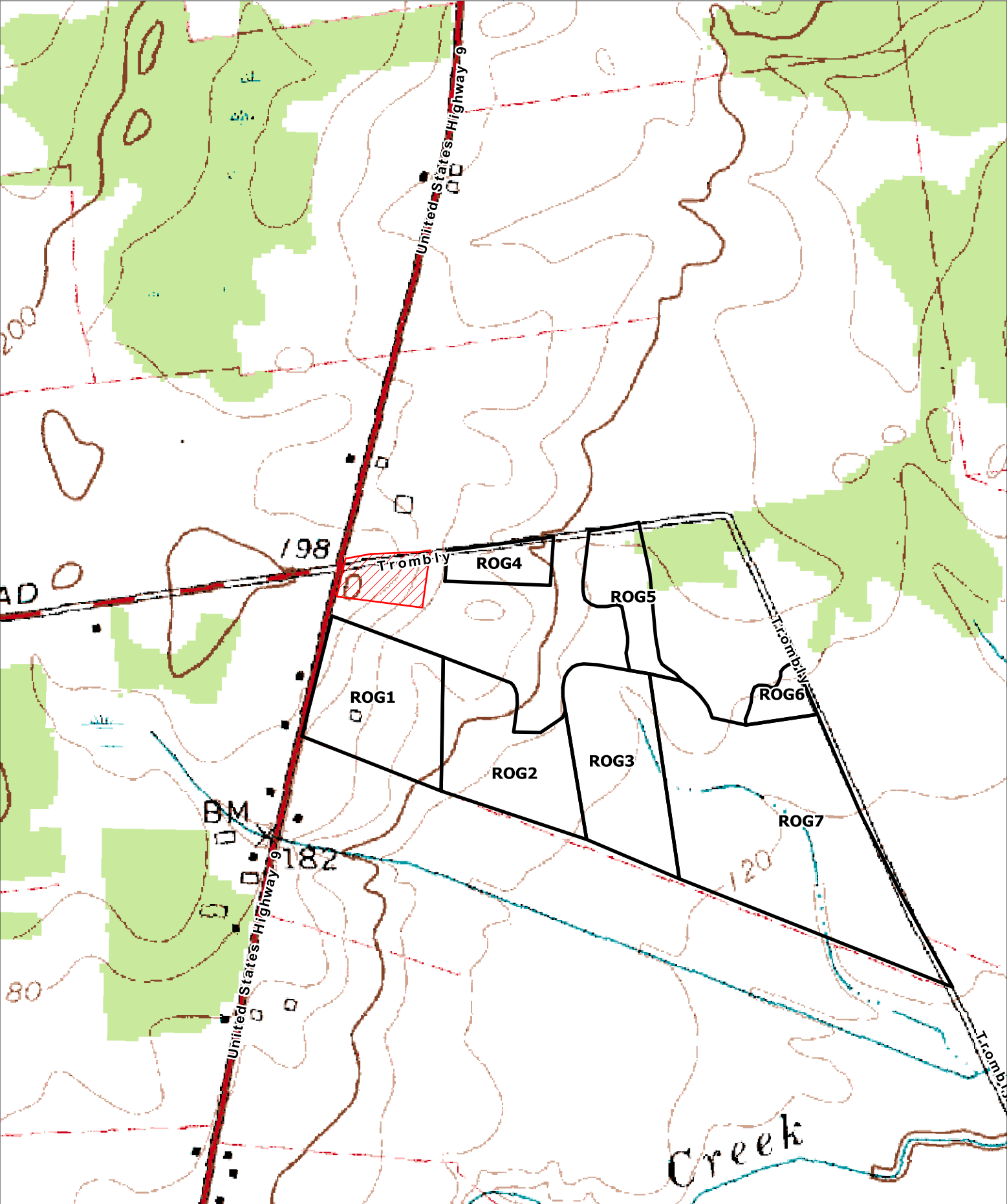
Topographic Map for:

Cha-Liz Farms

ASH REED 01-09
AJG 6-11-2013

0 660 ft US





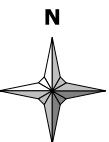
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acs@acsoffice.com

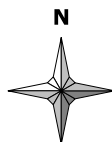
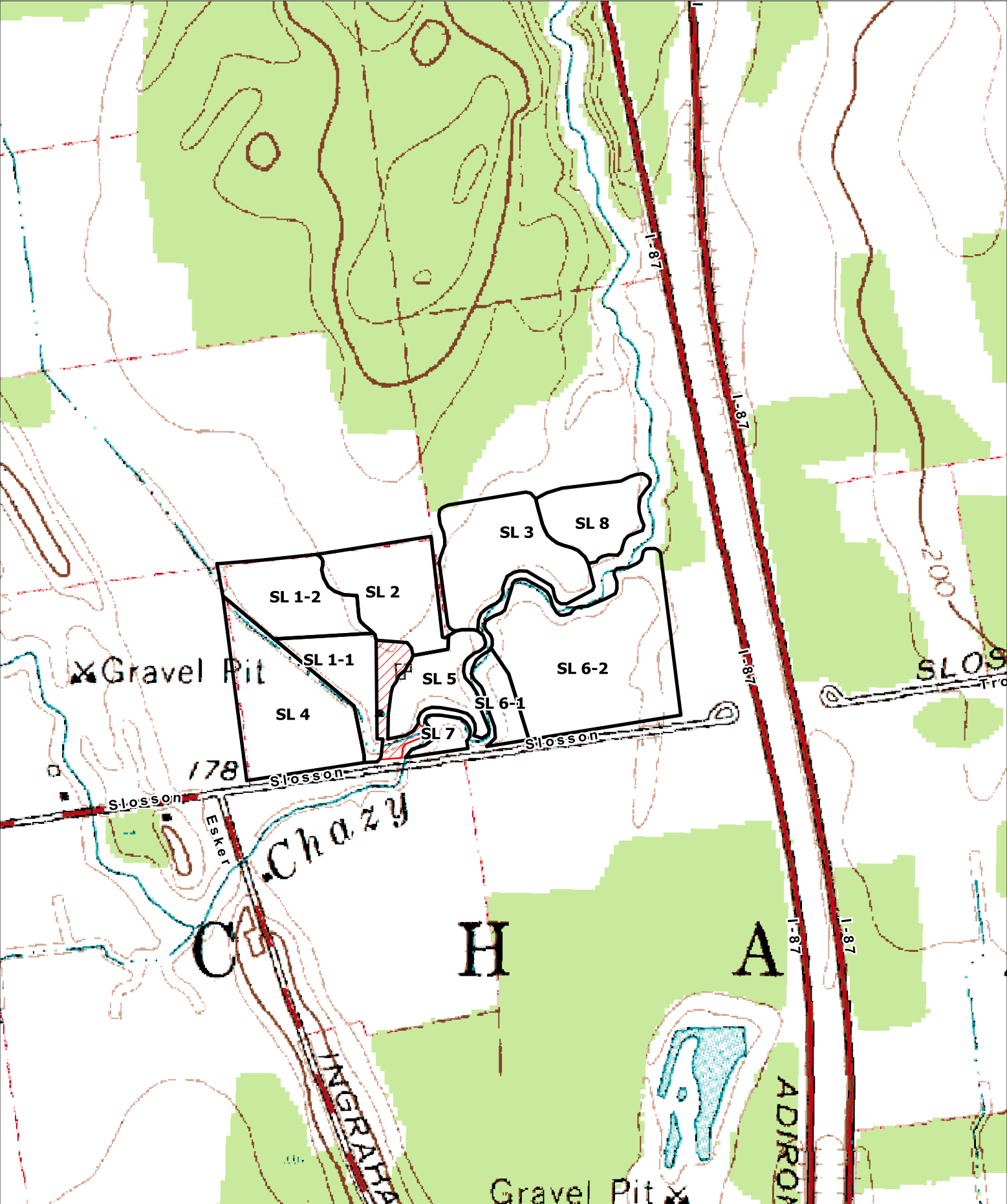
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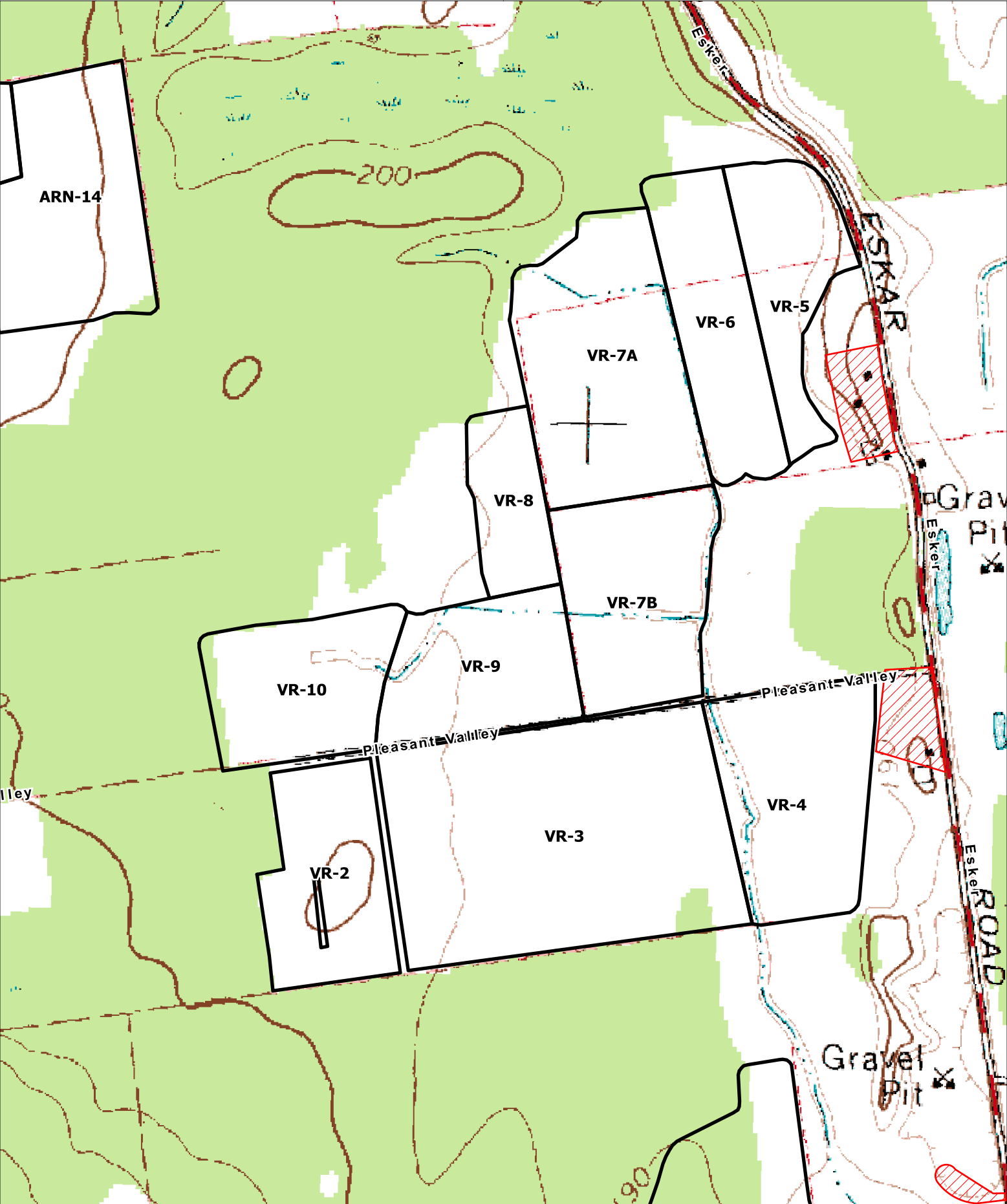
Cha-Liz Farms

ASH ROG 01-07
AJG 6-11-2013

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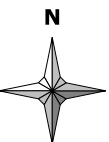
Agricultural
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acs@acsoffice.com

Topographic Map for:

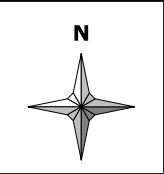
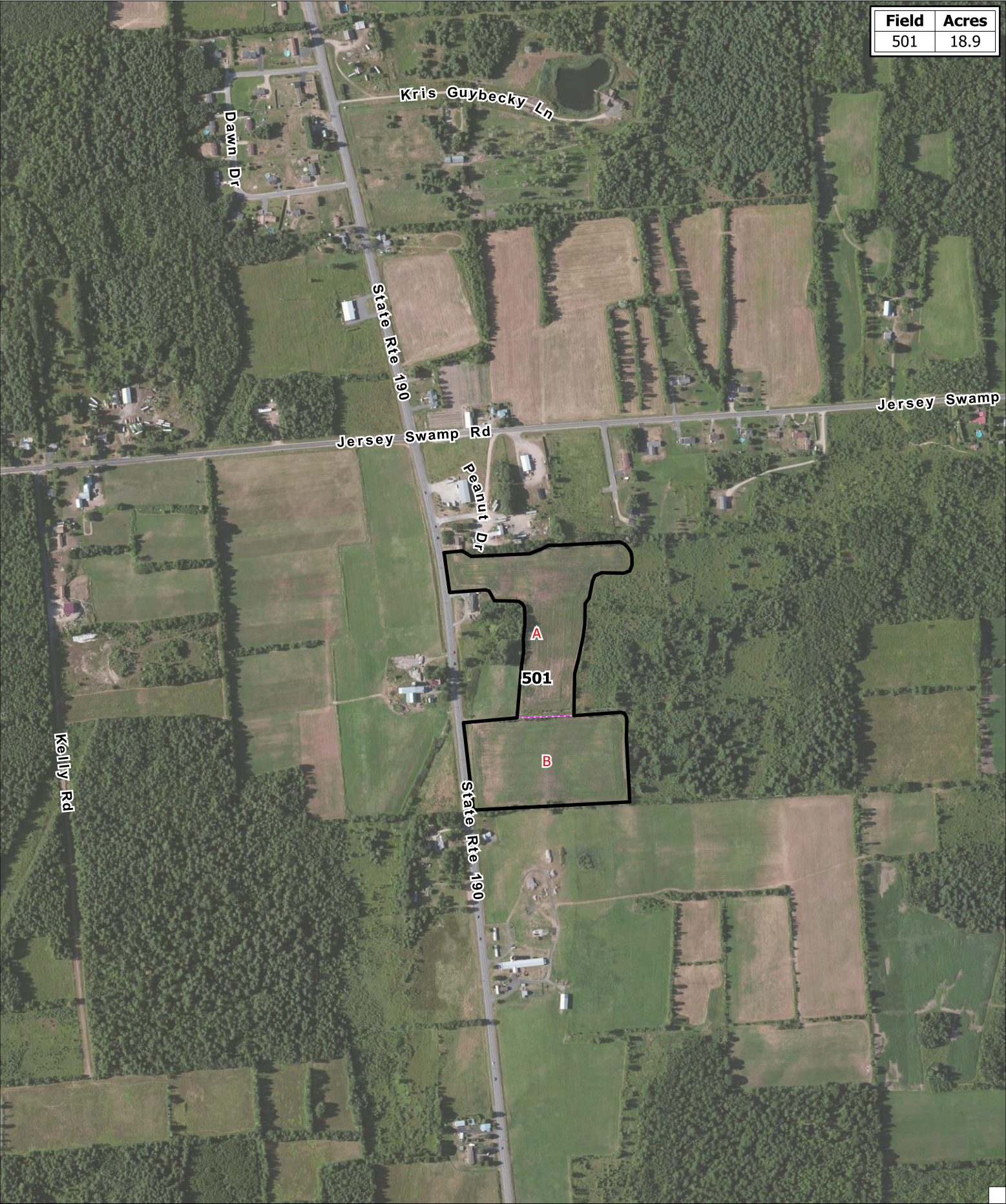
Cha-Liz Farms

ASH VR 02-10
AJG 6-11-2013

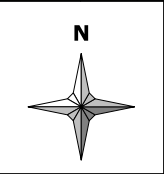
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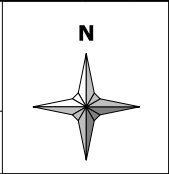
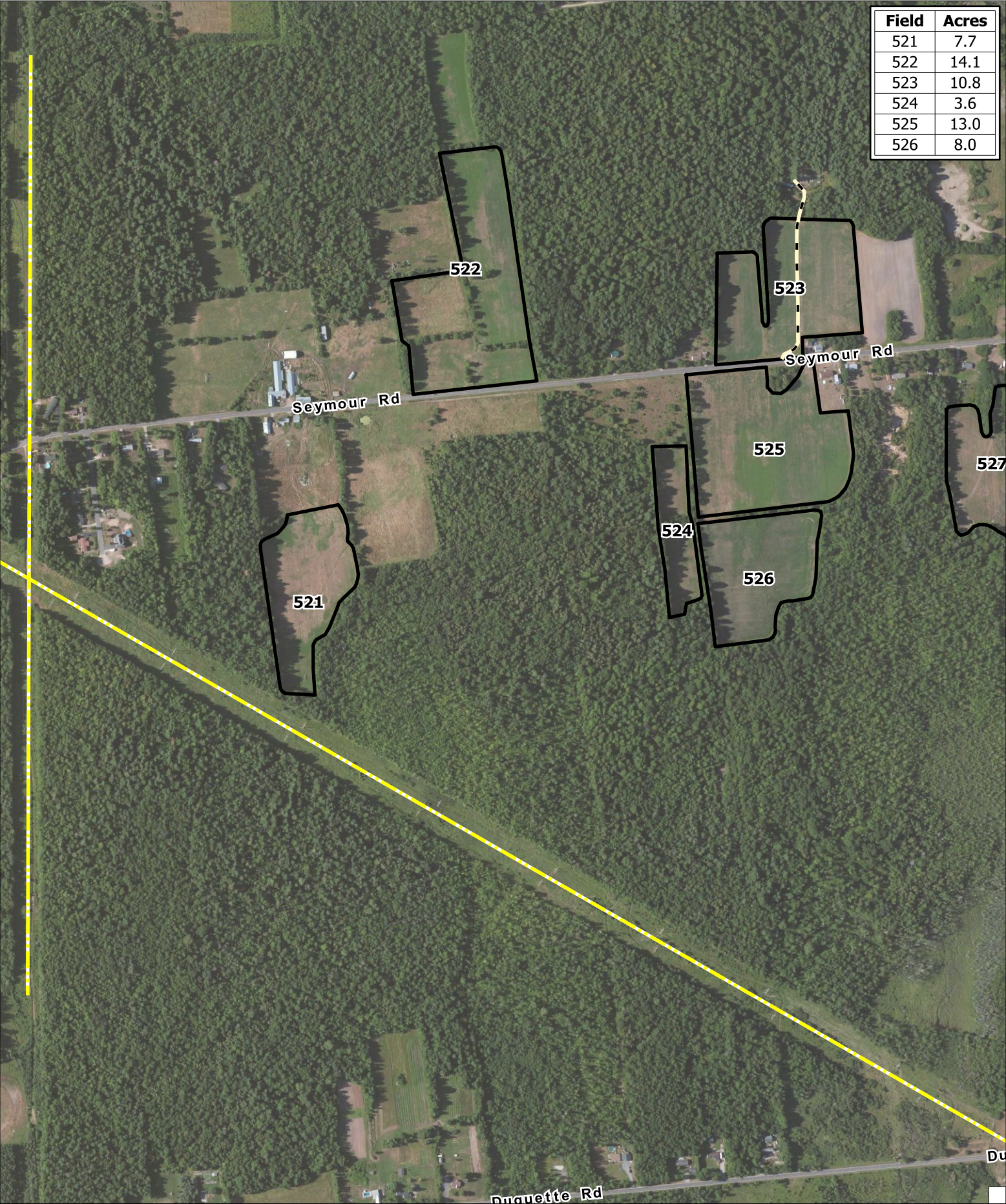
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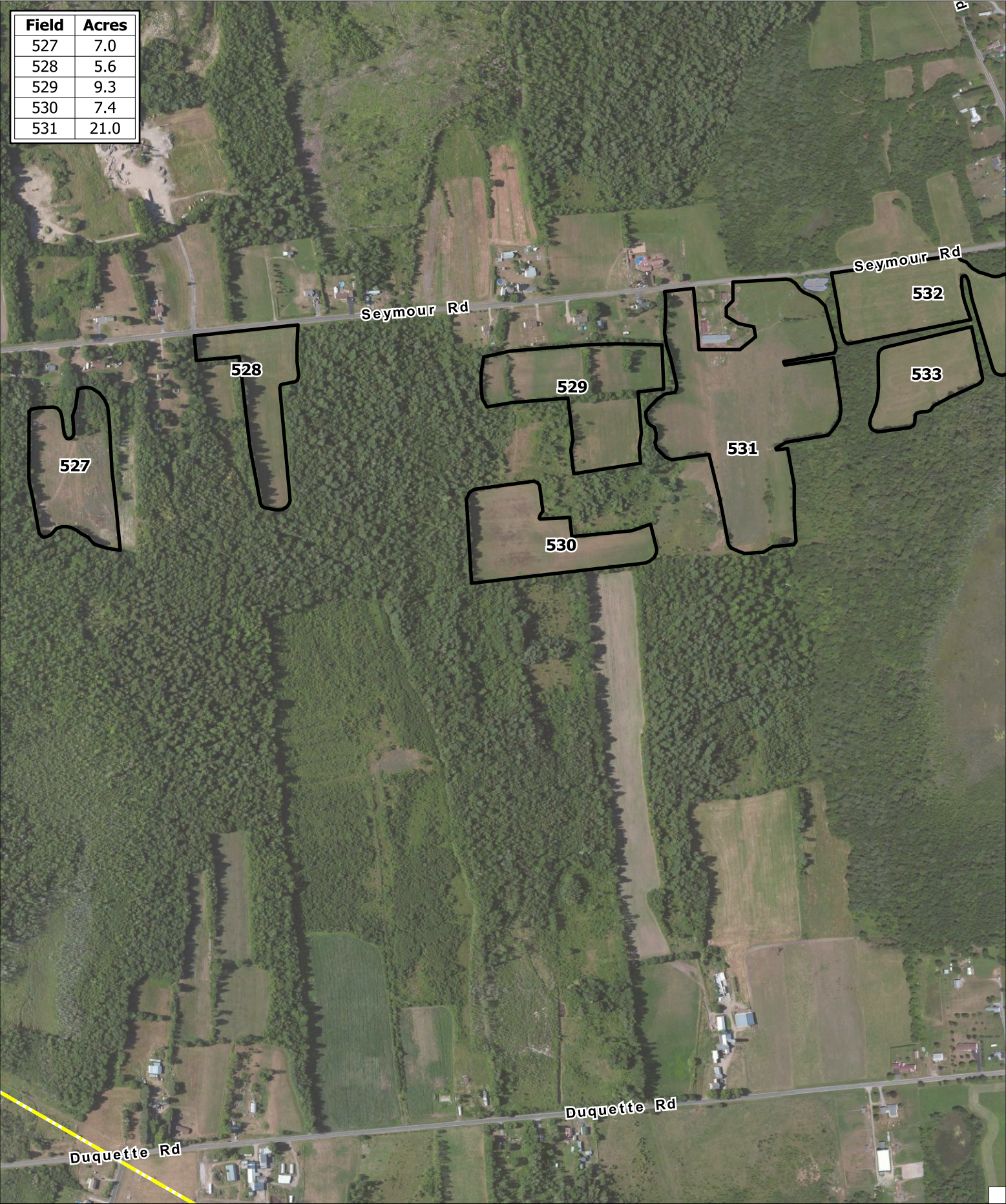
Field	Acres
511	11.5
512	10.1



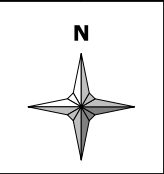
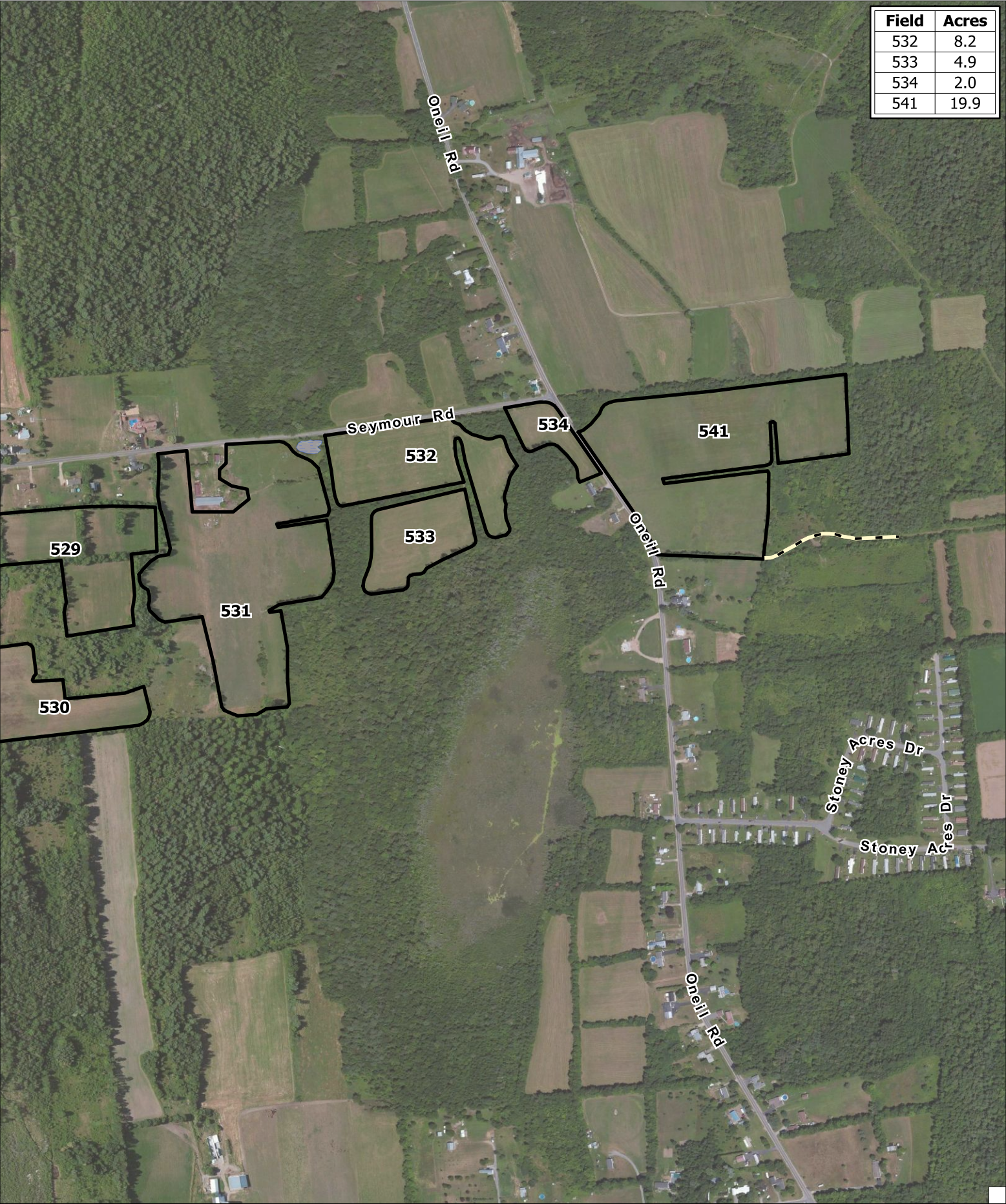
Field	Acres
521	7.7
522	14.1
523	10.8
524	3.6
525	13.0
526	8.0



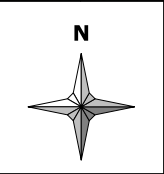
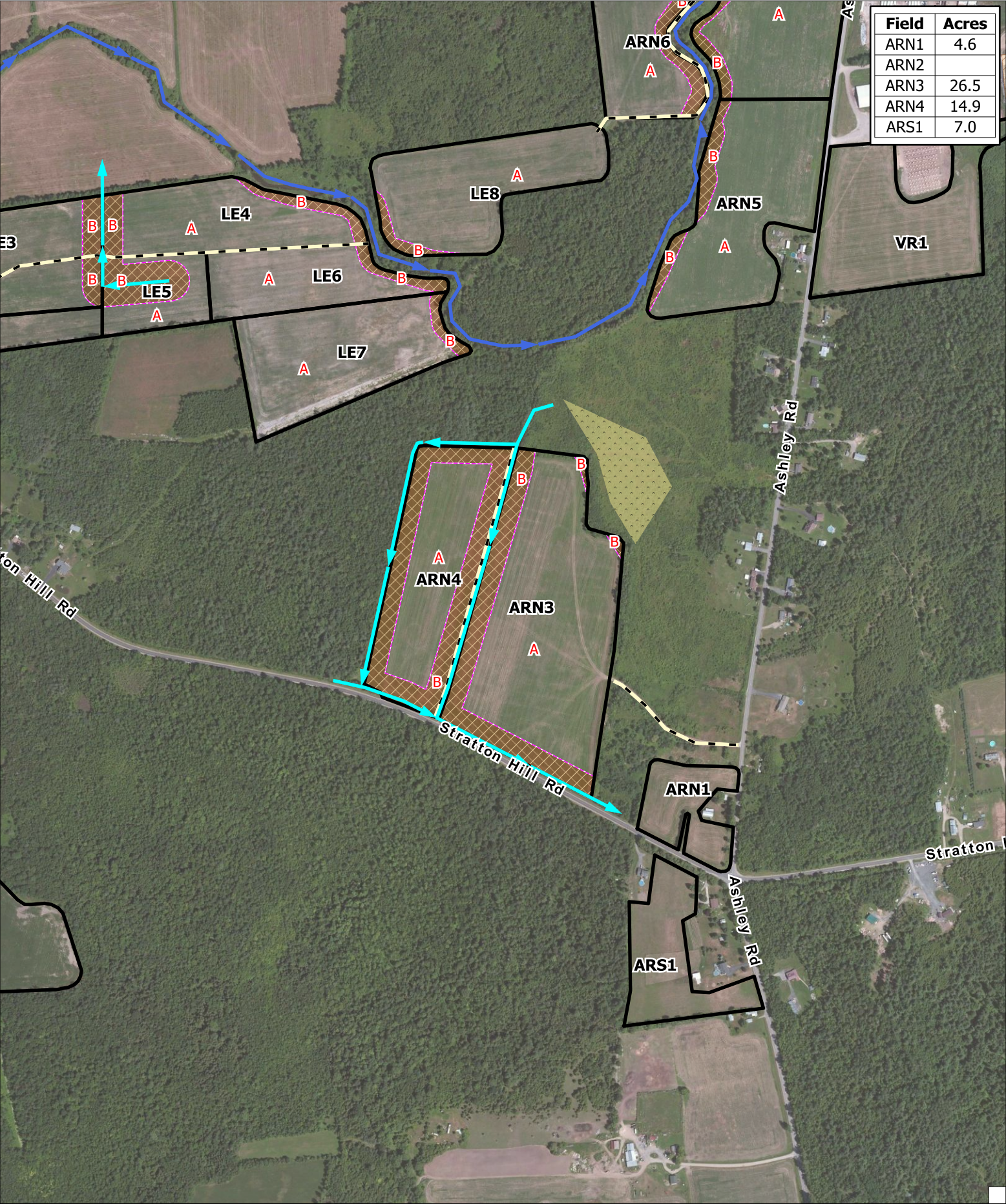
Field	Acres
527	7.0
528	5.6
529	9.3
530	7.4
531	21.0

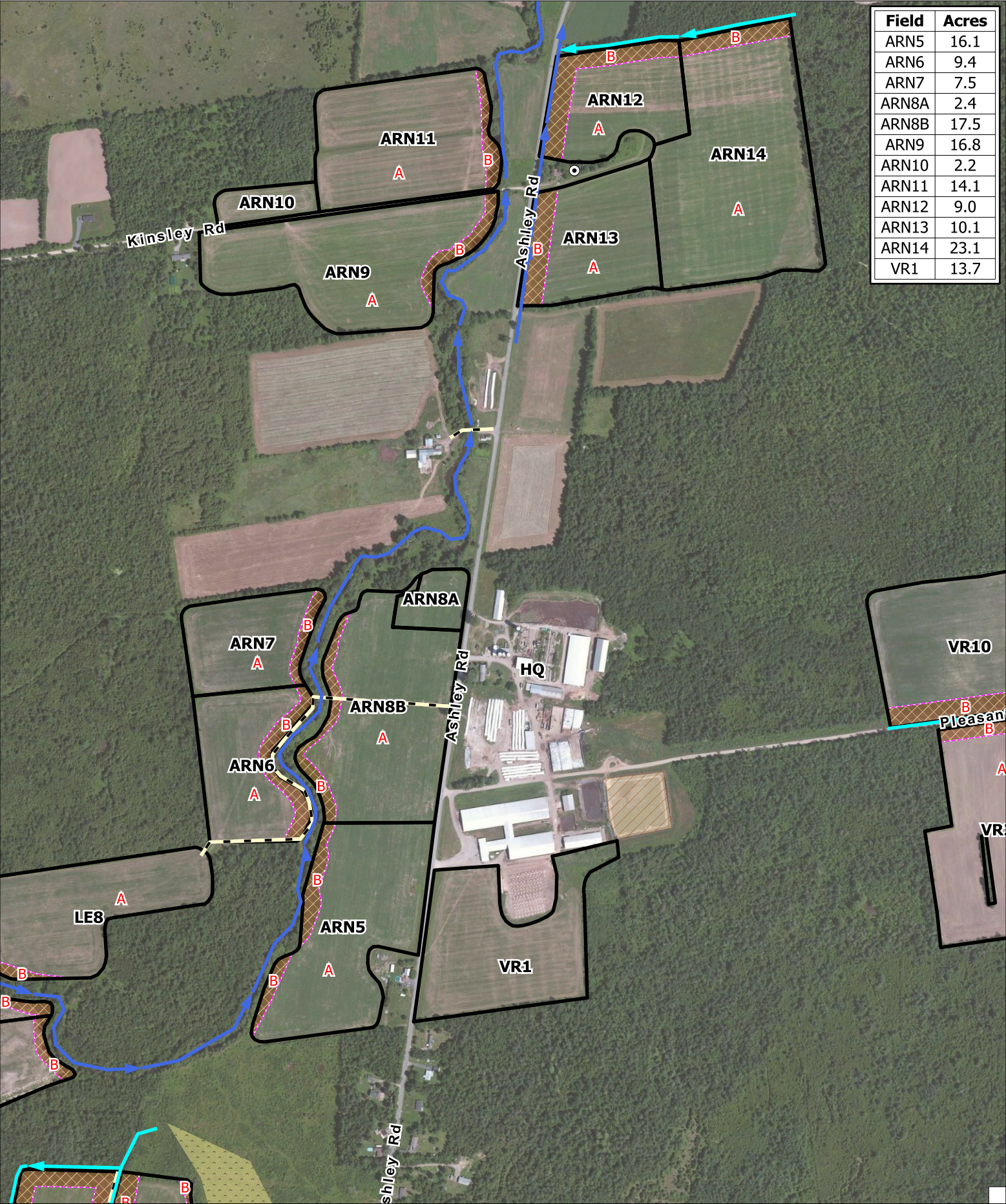


Field	Acres
532	8.2
533	4.9
534	2.0
541	19.9

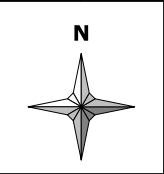


Field	Acres
ARN1	4.6
ARN2	
ARN3	26.5
ARN4	14.9
ARS1	7.0

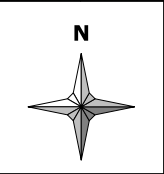
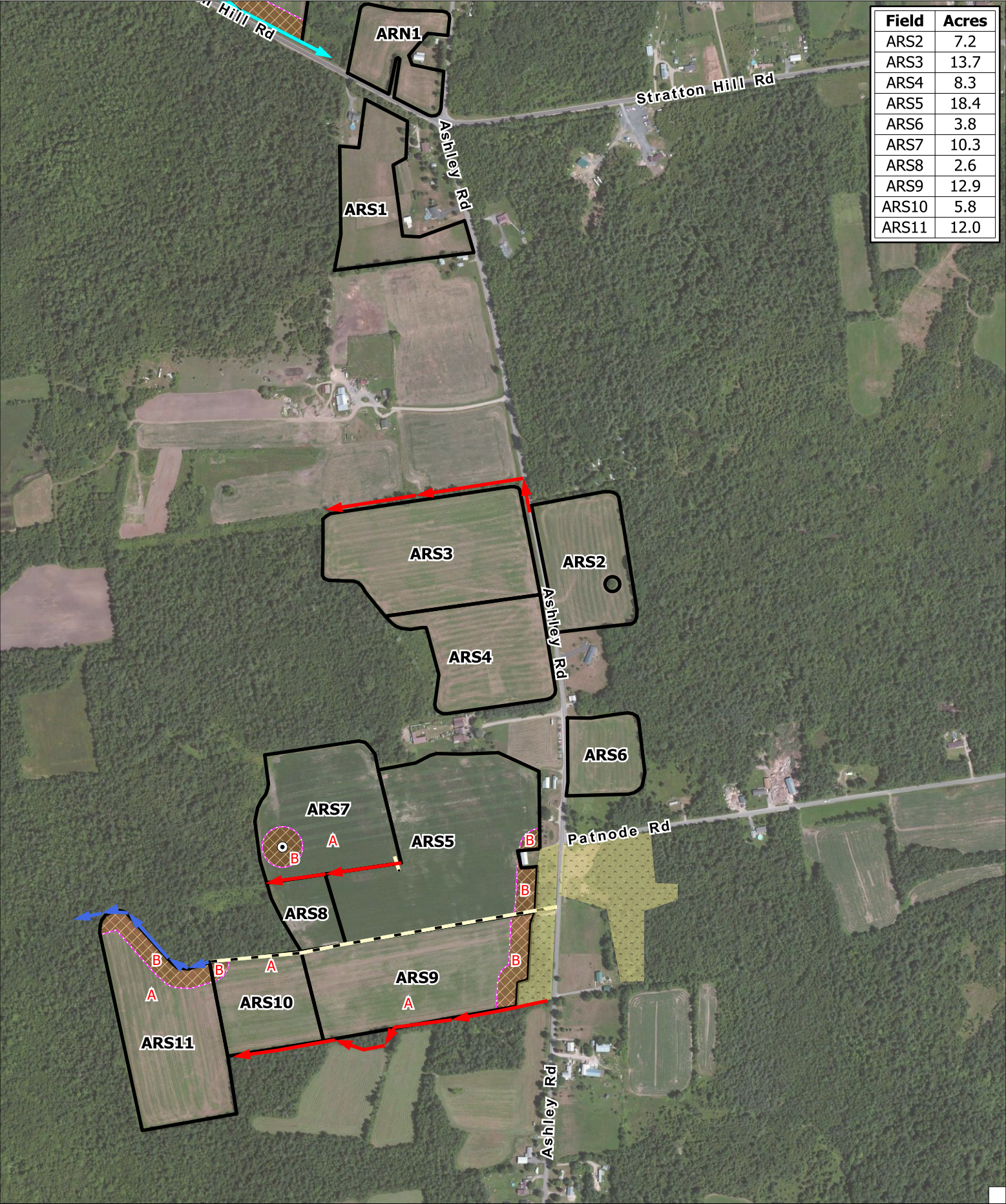




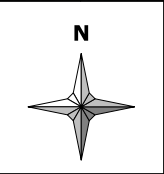
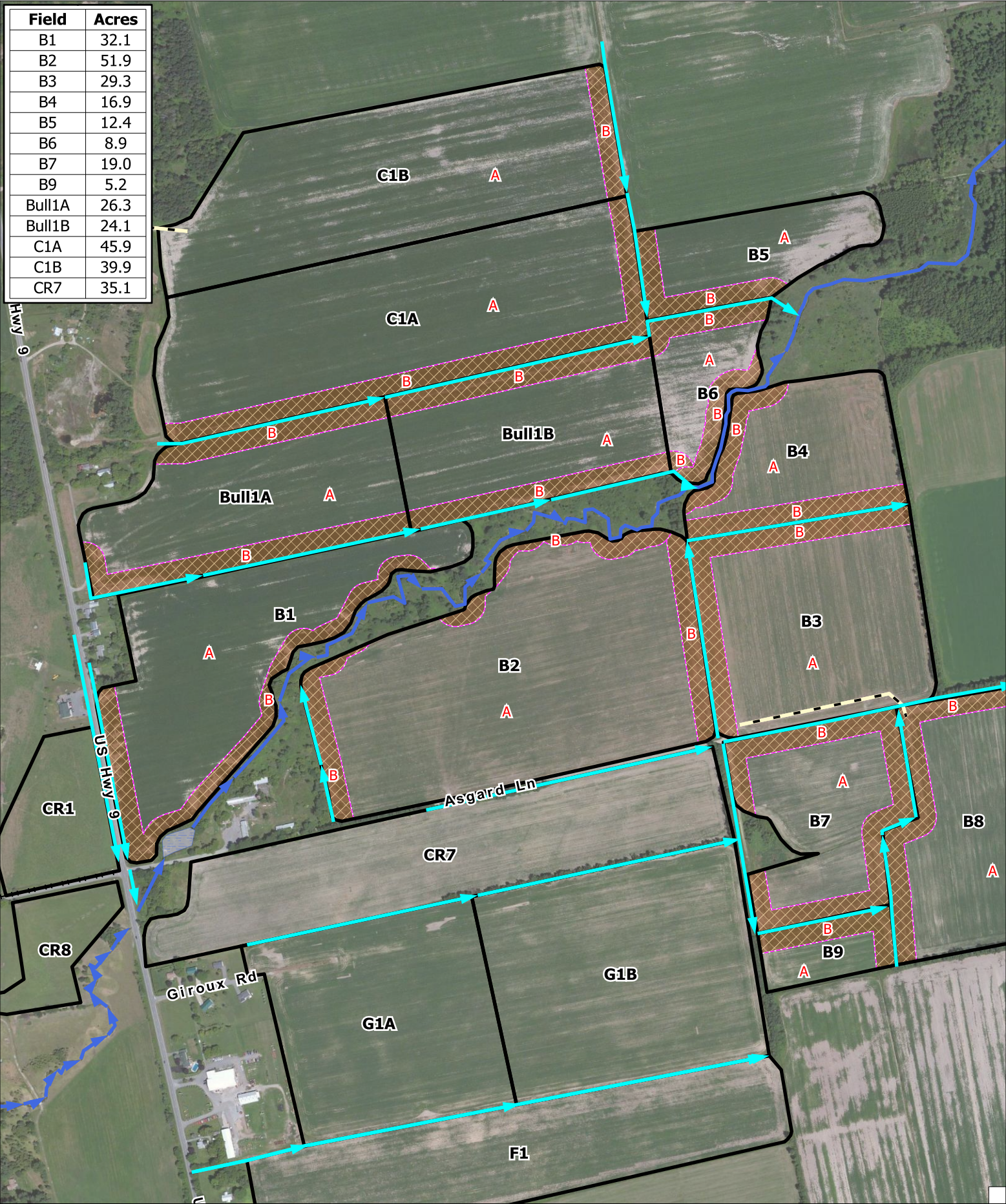
Field	Acres
ARN5	16.1
ARN6	9.4
ARN7	7.5
ARN8A	2.4
ARN8B	17.5
ARN9	16.8
ARN10	2.2
ARN11	14.1
ARN12	9.0
ARN13	10.1
ARN14	23.1
VR1	13.7



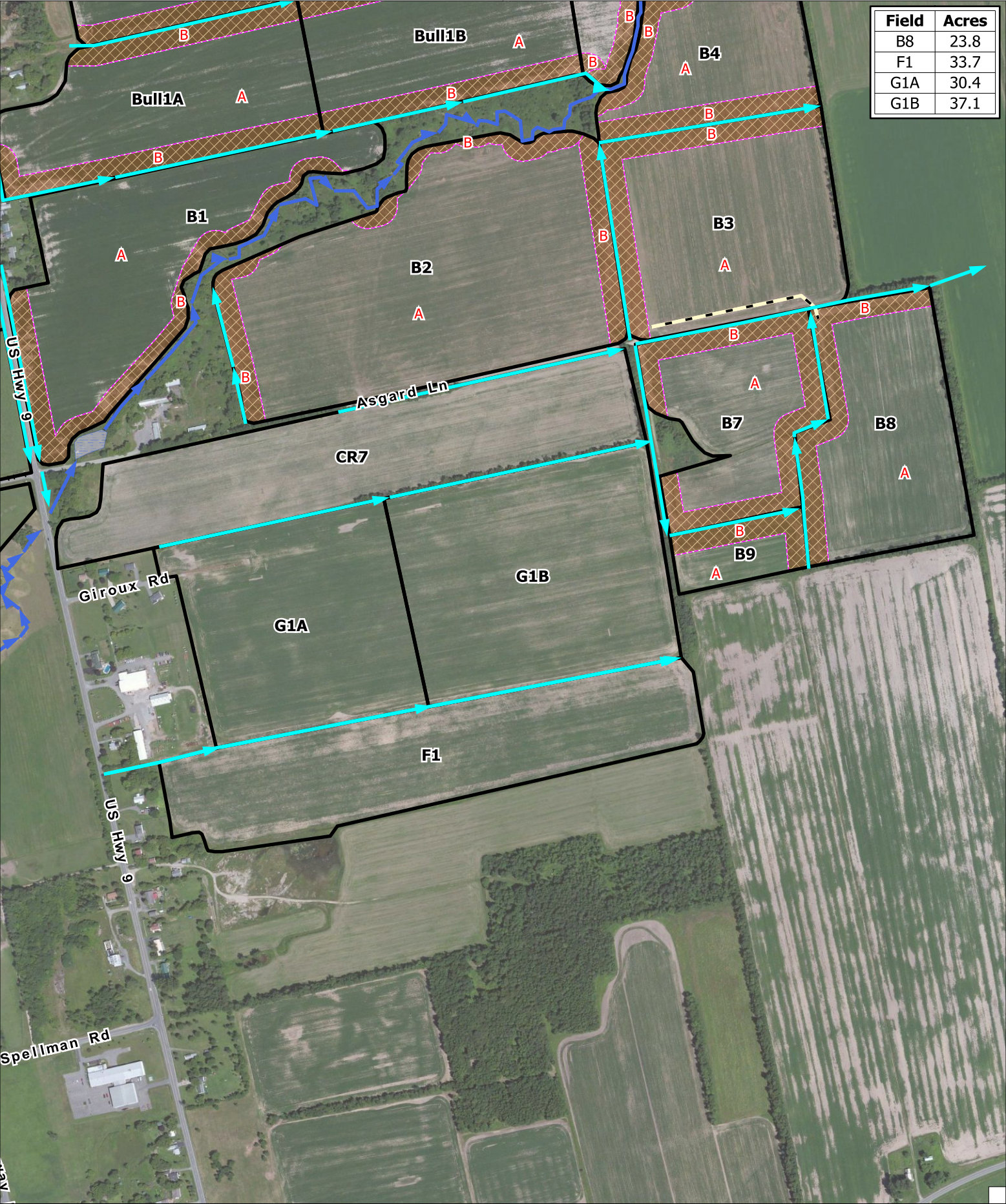
Field	Acres
ARS2	7.2
ARS3	13.7
ARS4	8.3
ARS5	18.4
ARS6	3.8
ARS7	10.3
ARS8	2.6
ARS9	12.9
ARS10	5.8
ARS11	12.0

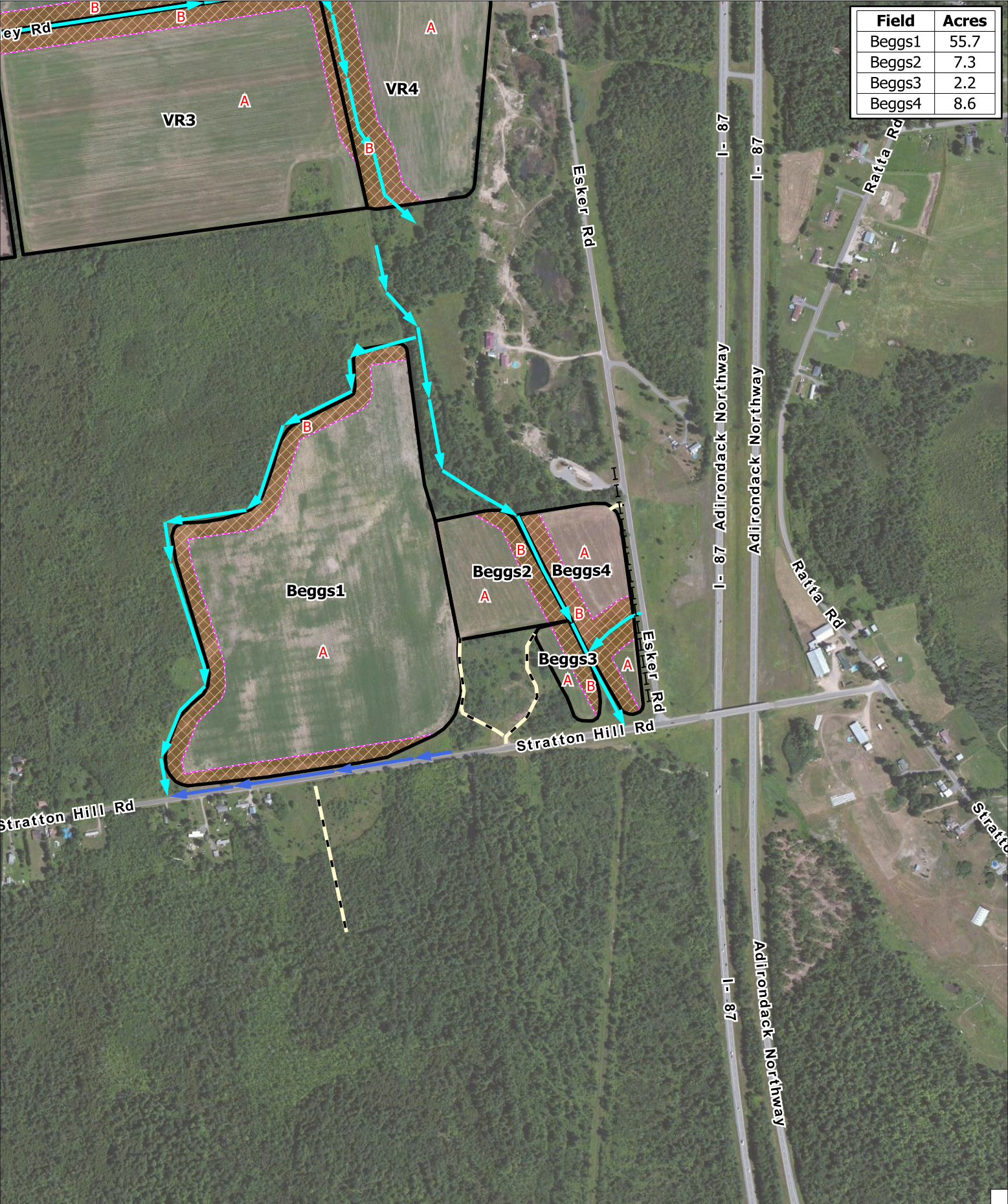


Field	Acres
B1	32.1
B2	51.9
B3	29.3
B4	16.9
B5	12.4
B6	8.9
B7	19.0
B9	5.2
Bull1A	26.3
Bull1B	24.1
C1A	45.9
C1B	39.9
CR7	35.1

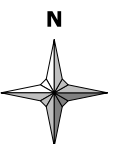


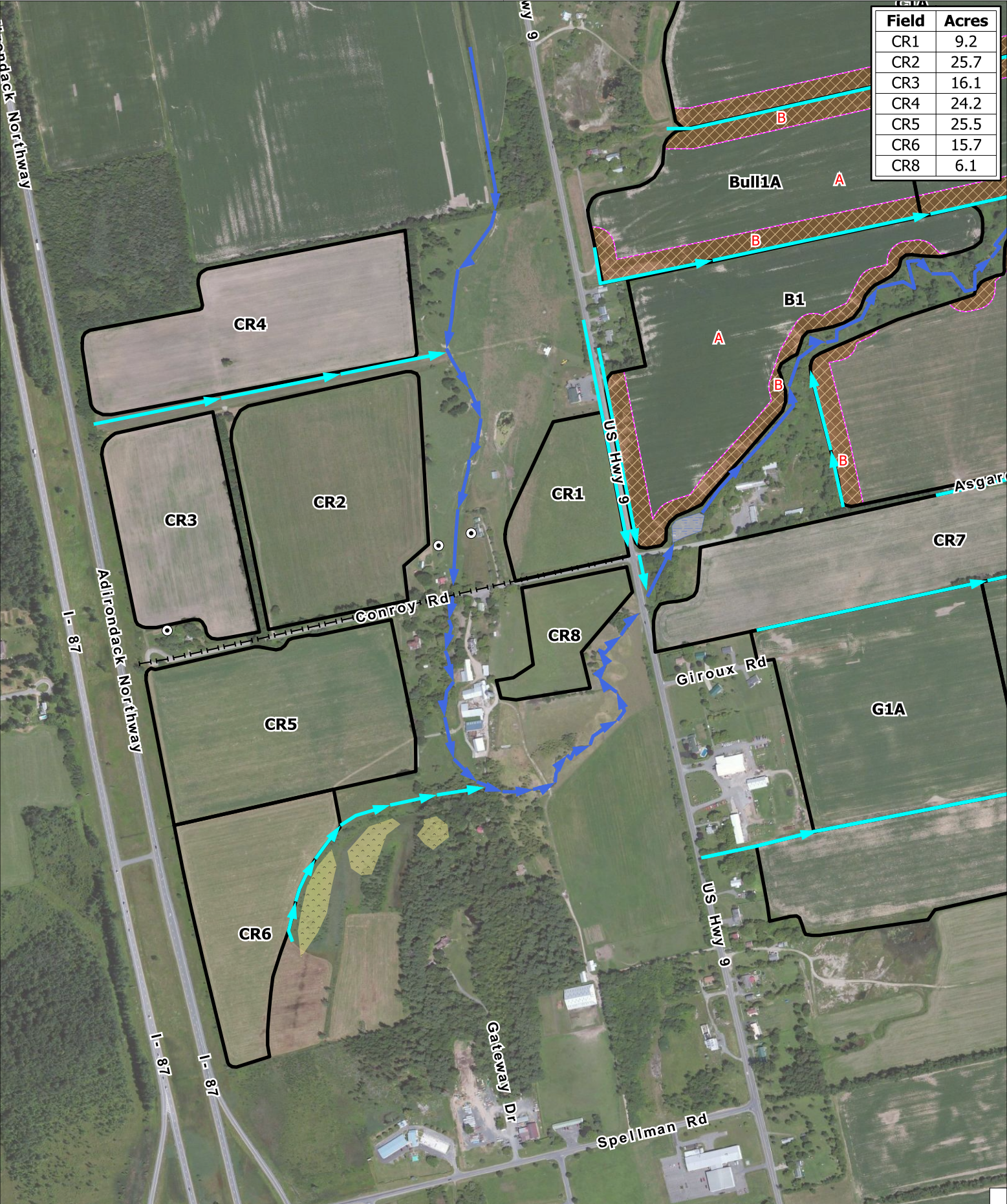
Field	Acres
B8	23.8
F1	33.7
G1A	30.4
G1B	37.1



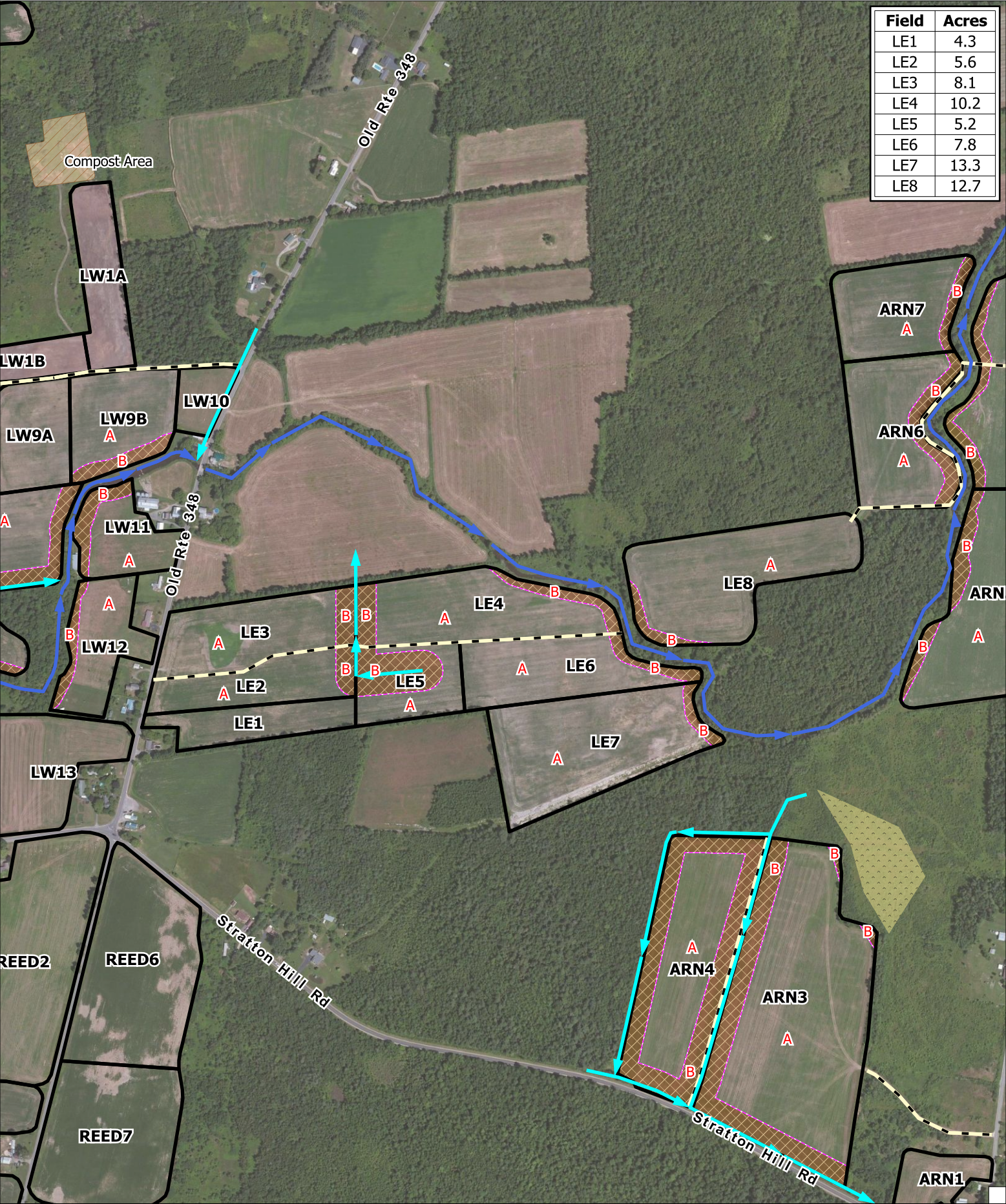


Field	Acres
Beggs1	55.7
Beggs2	7.3
Beggs3	2.2
Beggs4	8.6

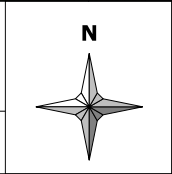
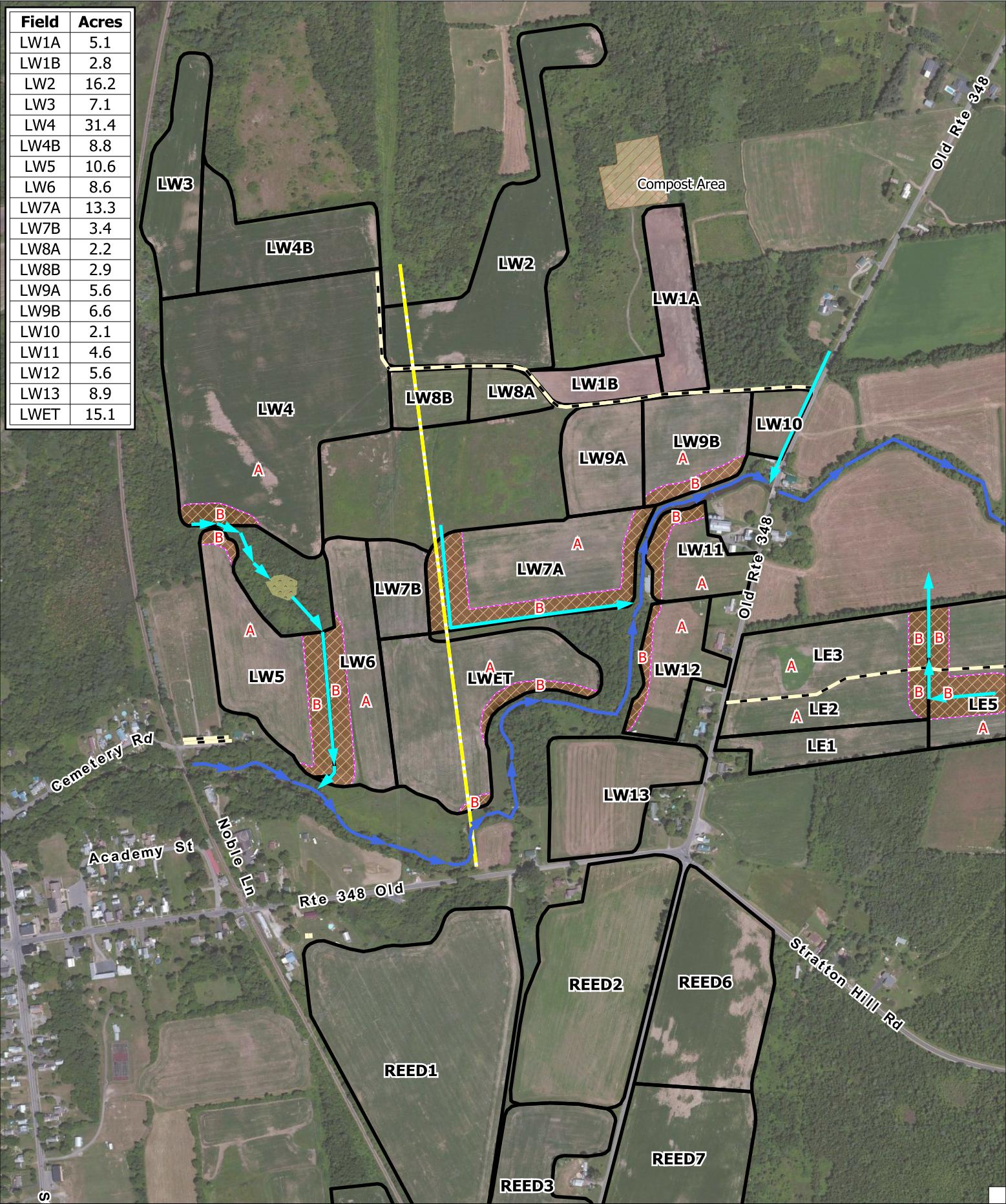




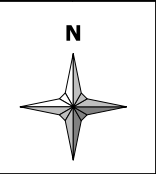
Field	Acres
LE1	4.3
LE2	5.6
LE3	8.1
LE4	10.2
LE5	5.2
LE6	7.8
LE7	13.3
LE8	12.7

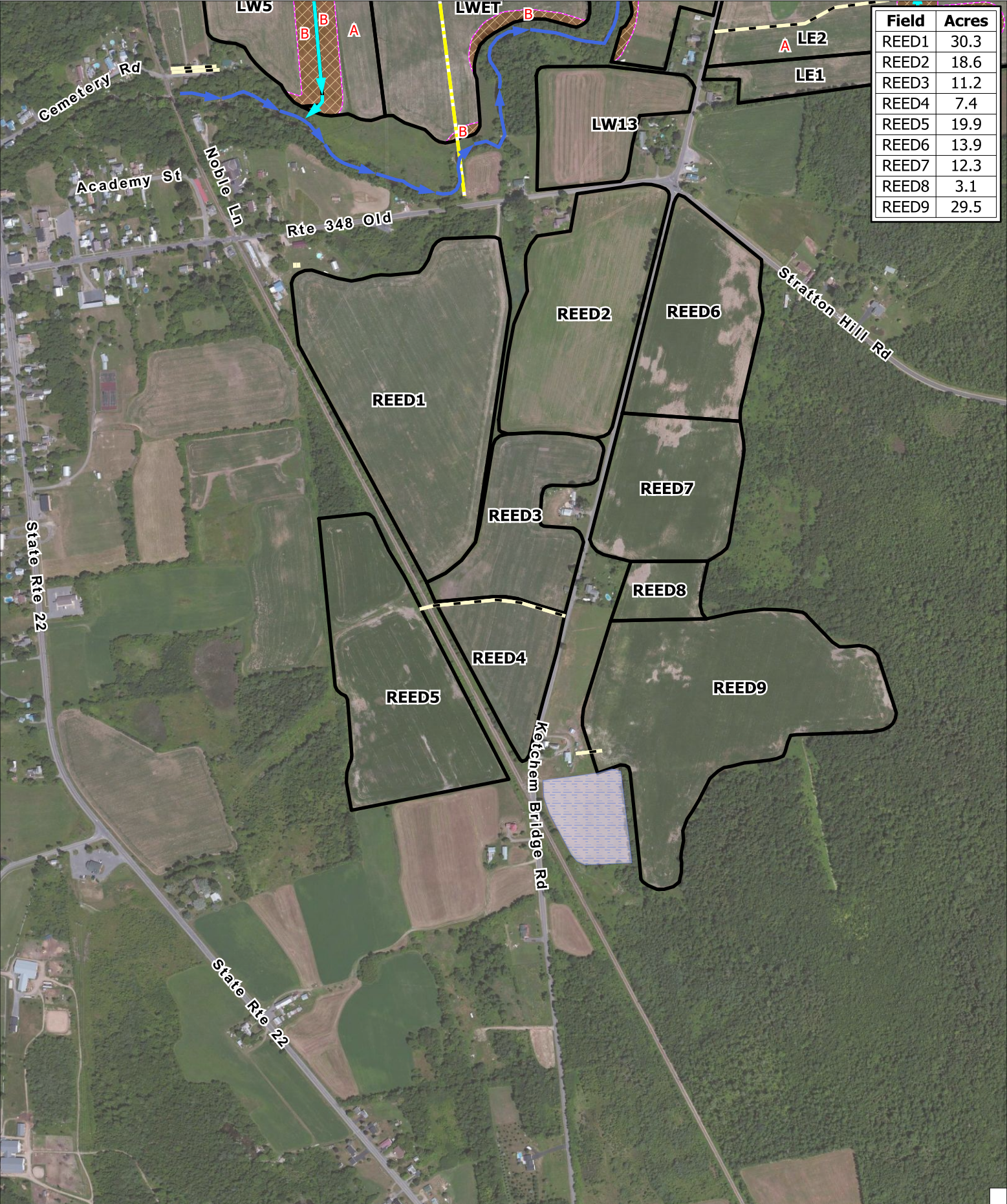


Field	Acres
LW1A	5.1
LW1B	2.8
LW2	16.2
LW3	7.1
LW4	31.4
LW4B	8.8
LW5	10.6
LW6	8.6
LW7A	13.3
LW7B	3.4
LW8A	2.2
LW8B	2.9
LW9A	5.6
LW9B	6.6
LW10	2.1
LW11	4.6
LW12	5.6
LW13	8.9
LWET	15.1

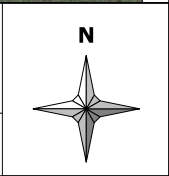


Field	Acres
PAR1	12.9
PAR2	10.9
PAR3	11.5
PAR6	8.8
PAR9	5.7
PAR10	9.7
PAR14A	11.9
PAR14B	16.7
PAR15	16.4
PAR16	18.5
PAR17	6.7
PAR18	10.0

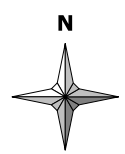
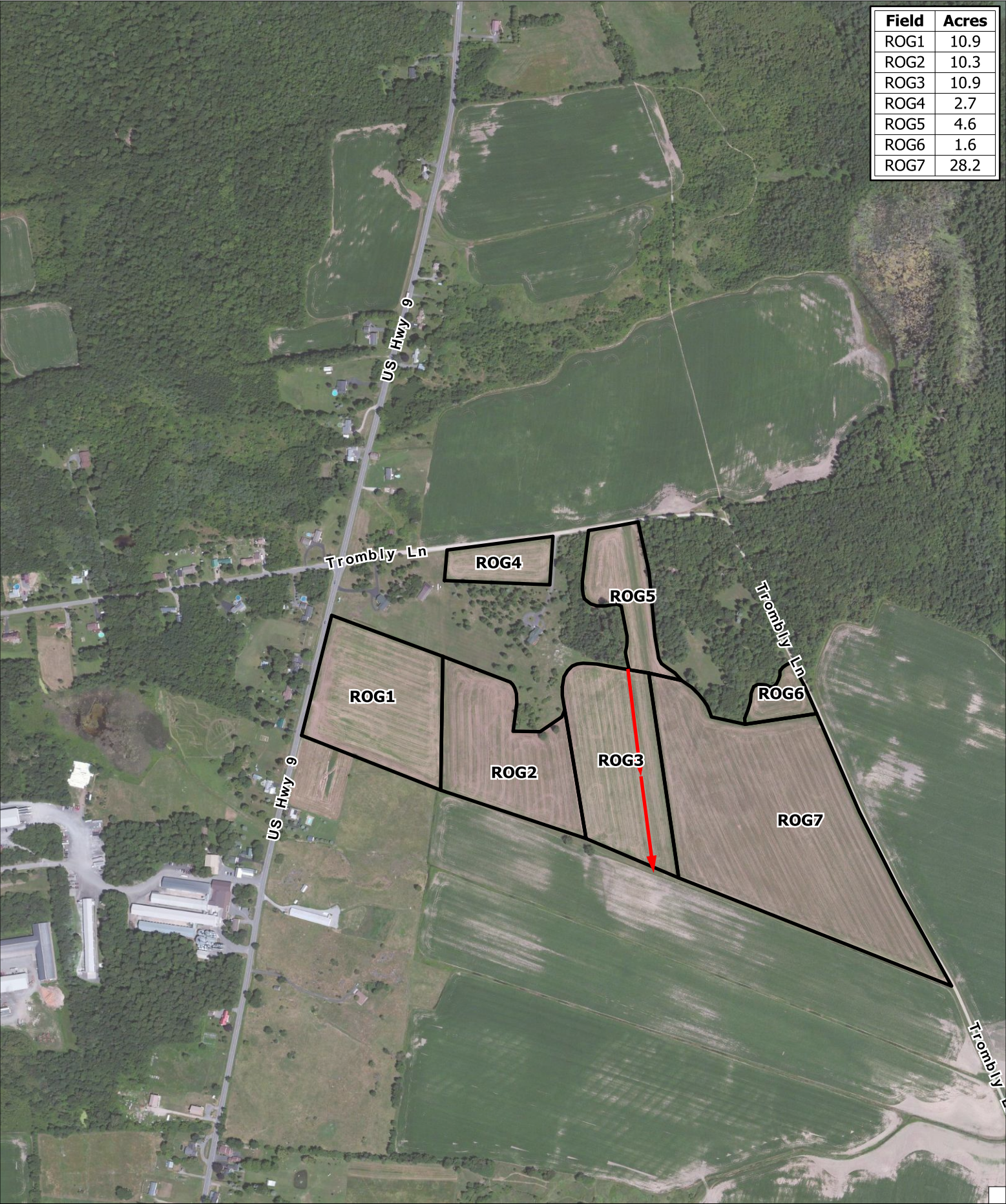




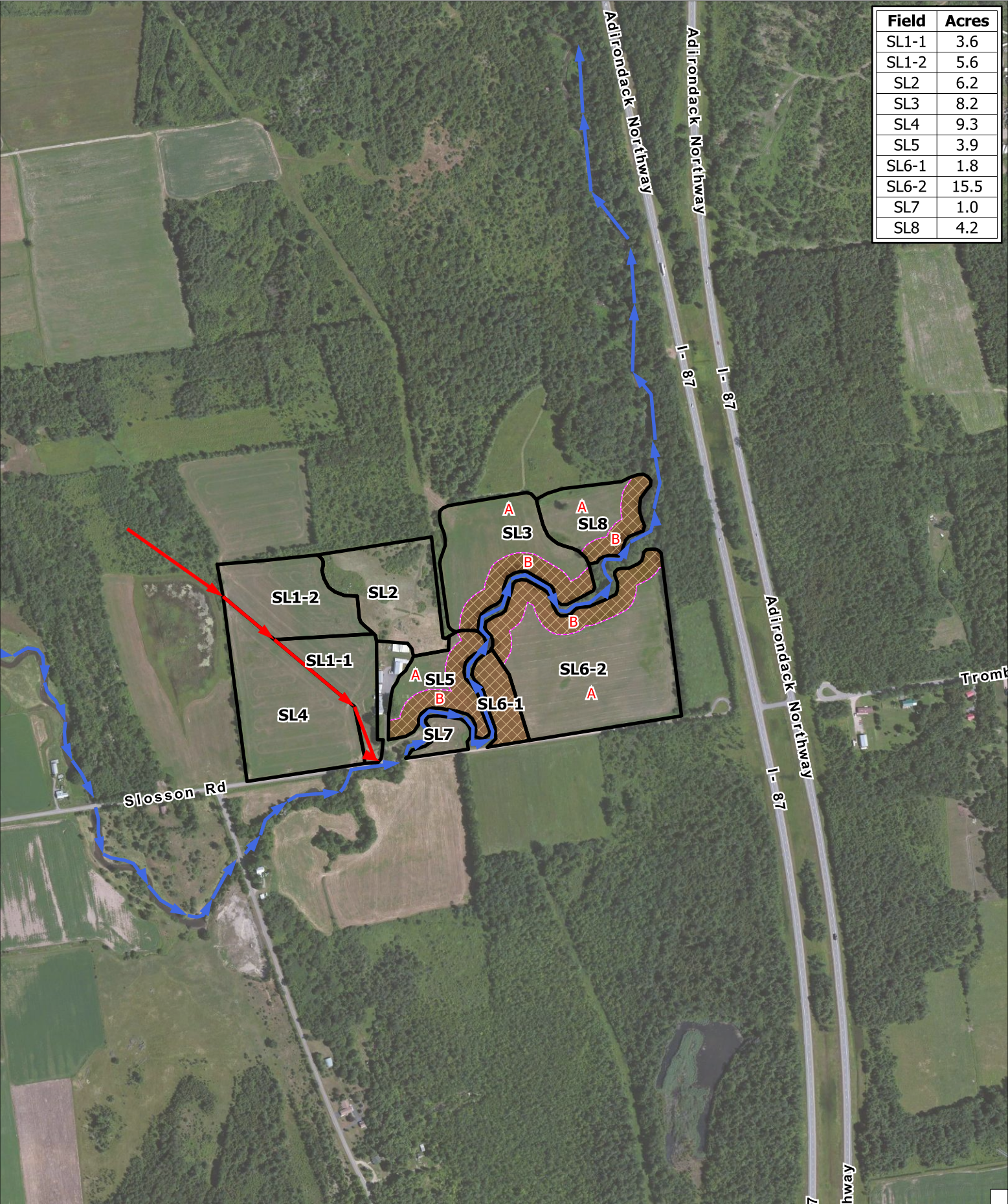
Field	Acres
REED1	30.3
REED2	18.6
REED3	11.2
REED4	7.4
REED5	19.9
REED6	13.9
REED7	12.3
REED8	3.1
REED9	29.5



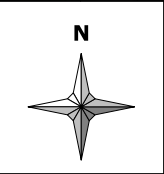
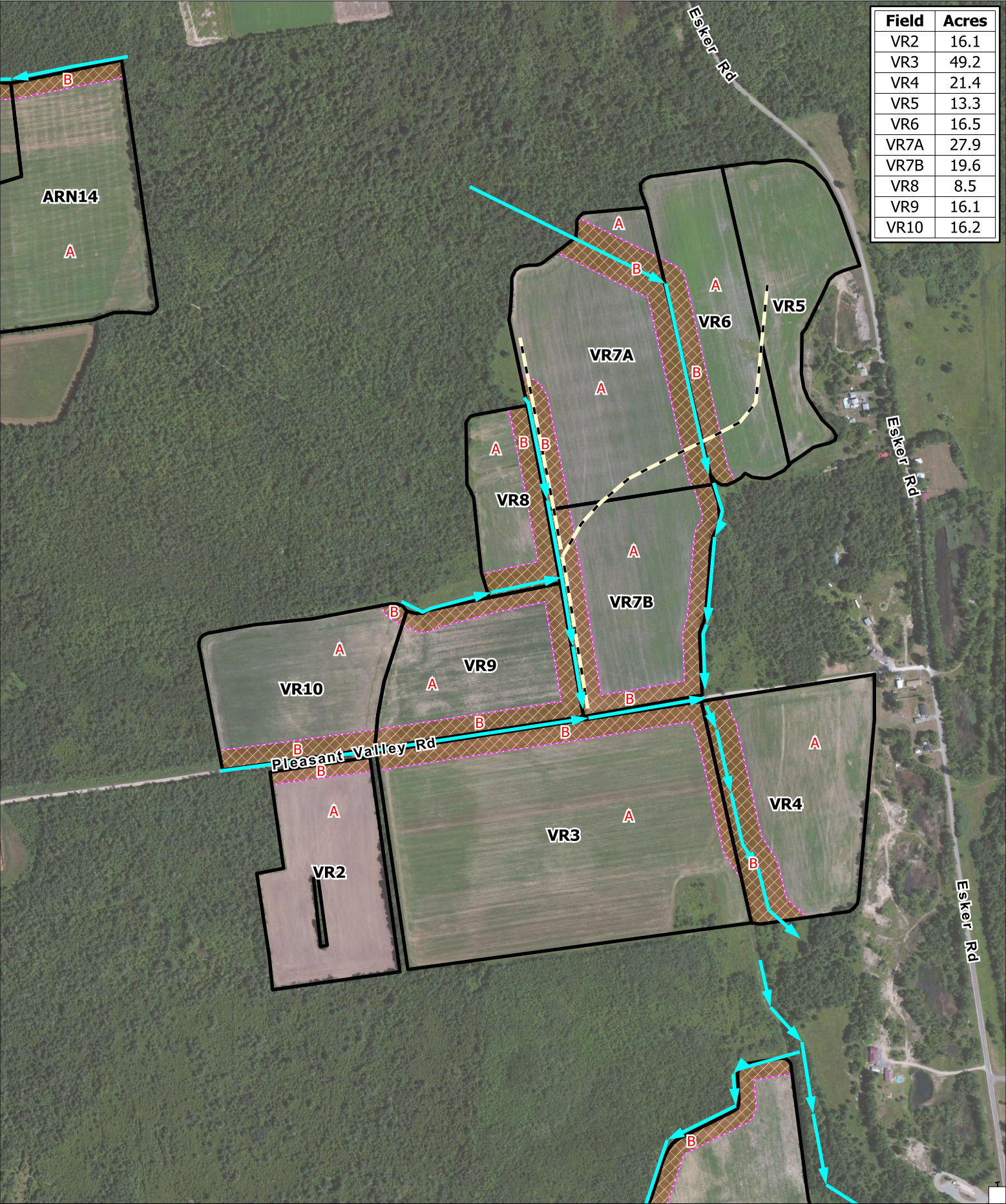
Field	Acres
ROG1	10.9
ROG2	10.3
ROG3	10.9
ROG4	2.7
ROG5	4.6
ROG6	1.6
ROG7	28.2



Field	Acres
SL1-1	3.6
SL1-2	5.6
SL2	6.2
SL3	8.2
SL4	9.3
SL5	3.9
SL6-1	1.8
SL6-2	15.5
SL7	1.0
SL8	4.2



Field	Acres
VR2	16.1
VR3	49.2
VR4	21.4
VR5	13.3
VR6	16.5
VR7A	27.9
VR7B	19.6
VR8	8.5
VR9	16.1
VR10	16.2



Manure/Waste Utilization Plan

Cha-Liz Farms

Estimated manure production

Approximately 14.5 million gallons of manure and 1,356 Tons of Compost are produced annually at Cha-Liz Farms. The Estimated Manure Production report details the contribution sources to that total from the various animal groups, bedding materials, milkhouse waste water and precipitation directly onto and running into the various storages.

Manure analysis report

Manure analyses have been performed for the farm's manure products. Manure products should be tested annually with manure from storages being sampled after the storage has been agitated. Currently, the farm tests manure from the heifer pit, the main storage system, and the compost when it is eventually spread.

Manure application timing, manure recommendations totals

Cha Liz Farm has two different manure pit systems on the farm. Due to the frequent mixing of the two main storages (WSF#1 and WSF#2) and the concrete collection tank, one manure test is utilized for an average nutrient content of the manure. Manure is mainly spread in the Fall, Spring, and during the Summer on hay ground following the recommendations given to the farm. Manure spread in the Fall and Spring months are incorporated as soon as possible where appropriate. Recommendations for spreading of 14.6 million gallons have been developed for the 2016 crop season and are slightly in excess of estimated production volumes.

Manure transfer

Liquid manure is spread on fields throughout the year when applicable. Cha-Liz Farms utilizes several tank spreaders of different capacities to apply manure at varying rates. The farm also will vary speed and gears to alter the application rates on fields. Manure is sometimes exported to neighboring farms at environmentally acceptable rates and methods as determined by the land owner who receives the manure. Cha-Liz Farms has exported up to 750,000 gals of manure in years past (total) to the following farms/owners: B. Atwood, G. Dumas, L.Gonyeau, T. Tetreault.

Manure from the main barns and the milkhouse are transferred via underground piping to the concrete manure storage. From here, manure is allowed to automatically flow via more piping into WSF #1 and then again into WSF #2 for final storage. Each stage of the storage allows for further solids settling and some dilution of the overall manure as more rainfall is mixed into it. Heifer manure from heifer barn 1 flows via gravity from under the barn into the storage pit directly to the North. Manure from the other heifer barns is scraped via skid steer and either added into the storage or transferred to the composting area. Further details of any manure transfer operations around the farm are given in the Farmstead Water Quality Management Plan section.

Manure storage

Cha-Liz Farm



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When the farm built the new freestall barns and milking parlor they also installed a new manure storage system as well. The original design and process was to have manure flow into the concrete storage tank before it went through solids separation to reclaim bedding for the cows. Once the solids were removed from the manure for the bedding the leftover liquid would flow into WSF#1 where it could be easily transferred back into the concrete storage tank to agitate accumulated solids or be run through the separator again. Liquid manure from WSF#1 would then “overflow” through a series of designed piping into WSF#2 for final storage before land applications. Since the original construction the farm has stopped using the solids separation system. Now, manure from the concrete collection tank simply overflow into WSF#1 and then into WSF#2 from there. This system acts to settle many solids from the manure before it reaches the final storage cell. The farm sometimes pumps manure directly from the concrete tank but generally takes it from the WSF#2 before land applications.

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